

PL-1-01 presented by Barry Castleman

Session: Global Health Impact of Asbestos: Urgent Action is Needed

The WTO Trade Dispute's Impact on Global Efforts to Ban Asbestos

Barry Castleman

Environmental Consultant, the U.S.A.



Abstract

The establishment of the WTO in 1995 created a forum on the global stage where national asbestos bans could not only be challenged individually but collectively. Canada, the world's leading exporter of asbestos fiber, decided to risk taking a case to this "world court of trade" as national bans on asbestos proliferated across Europe and were proposed in Asian and South American countries. Though WTO must have seemed an ideal forum, where trade was the predominant priority, there were also considerable risks for Canada and what remained of the asbestos industry at the turn of the century. The WTO's decision that asbestos bans did not violate international trade agreements, that they were fully justified on public health grounds, was a green light for asbestos ban efforts around the world and has now led to bans in a growing number of countries in all parts of the world. This is an analysis of the global struggle in which activists, scientists, unionists, and public health workers defeated attempts by asbestos interests to manipulate UN organizations. From Seattle to Geneva to the Third World, it is an epic story of a public health struggle that has come to involve a virtual network of people all over the world and stands as a model for these times.

PL-1-02 presented by Claudio Bianchi

Session: Global Health Impact of Asbestos: Urgent Action is Needed

Geography of Mesothelioma: An Overview

Claudio Bianchi

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Abstract

The principal feature in mesothelioma geography is the lack of data. Reliable figures on the incidence/mortality of/from mesothelioma are available for about 15% only of the world population. In particular, mesothelioma epidemiology is scarcely known for a majority of the big asbestos producer/consumer countries. Where data are available, marked variations in incidence are observed. During the last decades mesothelioma incidence showed a progressive increase in various industrialized countries, reaching the highest values in Australia, Belgium, and the UK. In such countries, annual crude incidence rates are around 30 cases per million. At the other extreme, crude incidence rates of 0.6 and 0.7 cases per million are reported respectively from Tunisia and Morocco. Japan showed a tremendous rise in mortality from mesothelioma during the last few years. In all the countries a high ratio pleural/peritoneal is generally observed. Incidence is markedly higher among men than among women, and it varies substantially from one occupational category to another. Some occupational groups (for instance maritime trades, non asbestos textile industries) have only recently been recognized as categories at risk for mesothelioma. At the national level, wide variations are observed among the different areas. The above characteristics may largely be explained by differences in the asbestos use. The latency periods (time intervals between first exposure to asbestos and diagnosis of mesothelioma) are considerably longer than previously reported and currently appreciated. In large series mean latency periods were around 50 years. An inverse relationship between intensity of exposure to asbestos and duration of latency period has been observed. Predictions on the future trend of the mesothelioma epidemic should take into account the fact that generally latency periods are longer than 20-30 years. The mesothelioma wave consequent to the very high world asbestos consumption that occurred in the 1970s has yet to be seen.

PL-1-03 presented by Takehiko Murayama

Session: Global Health Impact of Asbestos: Urgent Action is Needed

Epidemic of Asbestos-Related Diseases

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Abstract

In Japan, the consumption of asbestos, which is almost equal to the amount of asbestos imported due to negligible mining capacity, was minimal before World War II. It increased dramatically during the post-war "catch-up" period, reaching a peak level of 350,000 tons per year (t/yr) in the first half of the 1970s. Since then, it fluctuated around 250,000 - 300,000 t/yr until 1990, at which time a rapid decrease began. The most recent figure is 43,318 tons in the year 2002. In 2003, the Japanese government began amending the related laws and regulations to prohibit, in principle, all asbestos use. The bulk of demand for asbestos came from the manufacture of asbestos cement sheet. Given the fact that use of asbestos continued over such a long period, concern regarding the risk of mesothelioma is well justified. The available statistics since 1995 show a growing number of mesothelioma deaths and this has raised considerable concern among the public. The trend has also prompted the government to revise the compensation criteria for mesothelioma as an occupational disease. Hence the prediction of the future trend of this disease has important implications from both the public health and occupational health standpoint. According to a prediction by age-cohort model, the total number of deaths in the 40 years between 2000 and 2039 should reach about 103,000, and the predicted number (43,900) in the ten years between 2030 and 2039 would be 21.4 times the observed number (2,051) in the ten years between 1990 and 1999. Another result based on a model using a dose-response relationship shows that deaths induced by environmental exposure may occupy about ten percent of the total number of deaths. Taking into consideration the consumption pattern of asbestos in recent decades, the incorporation of later cohorts will improve the estimation.

PL-1-04 presented Fred Gona

Session: Global Health Impact of Asbestos: Urgent Action is Needed

The Burden of Asbestos-Related Disease in South Africa and the Struggle for Prevention and Compensation



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Abstract

Asbestos mining in South Africa started around 1895 and continued until 2001. The shrinking international asbestos market resulted in a decline in production from 1978 onwards. The National Union of Mineworkers (NUM), concerned about high levels of exposure and disease, organized for audits of surveillance programmes at various asbestos mines.

Screenings involved review of occupational and medical histories, chest radiographs and spirometry. Chest radiographs were read using the standardized International Labour Organization (ILO) classification for pneumoconiosis. Lung function tests were interpreted using the American Thoracic Society (ATS) criteria. Records of more than two thousand workers in crocidolite, amosite and chrysotile mines were reviewed over an 8 year period. Prevalence of asbestos-related disease (ARD) amongst retrenched workers ranged from 21-39% (crocidolite mines); 26-36% (chrysotile mines) and 37% in one amosite mine. Workers were also exposed to asbestos in the transport, construction, asbestos-cement, motor, energy, textile and waste-disposal industries. In addition, community members have been exposed to asbestos because of the extensive contamination of the environment. Given the epidemic proportions of ARD among exposed workers and surrounding communities, the Parliamentary Asbestos Summit was convened under the auspices of the Department of Environment and Tourism (DEAT) in the National Parliament of South Africa (1998). All major role-players were involved, and practical recommendations were made to address the asbestos epidemic. The DEAT recently announced in Parliament that asbestos use will be prohibited and will be phased out over three to five years for products where no current alternatives are available.

Trade Union and civil society organizations as well as litigation have been important in attempts to address the asbestos legacy of injustice, poverty, inequality and disease burden left by apartheid.

Future intervention challenges include further implementation of the Asbestos Summit recommendations; developing responsive models of health service delivery for asbestos sufferers; improving the quality of life indices (education, skills level, employability, income, social security, health) of affected individuals; adequate funding and resource allocation for sustainable development programmes and further environmental rehabilitation and preventive measures with community participation.

PL-1-05 presented by Domyung Paek
Session: Global Health Impact of Asbestos: Urgent Action is Needed

Korean Asbestos Strategy

Domyung Paek

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Abstract

Asbestos consumption in Korea peaked at 2.2 kg/person/year in 1992. It came down to 0.5 kg/person/year in 2001, but is still higher than in most other developing countries. After 30 years of widespread use of asbestos, the first case of an asbestos related health effect was recognized in 1993, when an asbestos textile worker was diagnosed with mesothelioma after 19 years of working in the industry. Thereafter, lung cancer cases were reported for compensation of asbestos exposures. One notable finding in these cases is that most of them had been exposed to asbestos by using, not manufacturing, asbestos products. Very few of them had worked in a workplace where asbestos exposure was ever measured, and hence we have no idea about the future potential of asbestos disease development.

Here, in dealing with persistent asbestos problems in Korea in a strategic way, three potential intervention points are proposed: technical, managerial, and socio-cultural. In this scheme, the most important underlying principle is to enable the empowerment of subjects or interested parties by giving them a voice and the chance of participation in the collection and evaluation of data and decision making processes. Few of these strategies have ever been implemented in Korea. Most of the previously implemented strategies involved the use of official workplace measurements and a health check-up program at the workplace, often without any meaningful results. Only when the program was used at the demand of the involved parties could problems be identified.

Still asbestos is used, and discussion about the banning of asbestos is not taking place in Korea. One of the major hurdles to the final ban of asbestos in Korea will be how to give the inaudible victims their voices back and thus enable them to tell their stories.

PL-1-07 presented by Nguy Ngoc Toan

Session: Global Health Impact of Asbestos: Urgent Action is Needed

Current Environmental Pollution at Asbestos-Cement Roofing Tile Production Factories in Vietnam and its Health Risks to the Workers

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Abstract

The paper shows the results of a survey of 35 AC roofing tile production factories in Vietnam, including figures on existing environmental pollution, the factors causing pollution, status of health and work-related illnesses and diseases among workers in these factories, and recommendations for minimizing pollution and limiting its impact in order to protect workers' health in the above-mentioned factories.

PL-1-08 presented by Somkiat Siriruttanapruk
Session: Global Health Impact of Asbestos: Urgent Action is Needed



Global Health Impact of Asbestos: An Experience from Thailand

Somkiat Siriruttanapruk

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Abstract

Asbestos has been imported by Thailand for more than 30 years, because there are no asbestos mines in the country. It is imported for manufacturing purposes from several countries such as the Russian Federation, Canada, and Brazil. Nowadays, only chrysotile and amosite are allowed to be used in Thailand. The data from the Thai Customs Department showed that the amount of imported raw material increased from 90,700 tons in 1987 to 181,348 tons in 2002 (at a cost of US\$ 54 million). Most of it (90%) is used in cement manufacture, i.e. roof tile and cement pipe. In 2004, sixteen asbestos-using factories with 1,900 workers were registered at the Department of Industrial Work, Ministry of Industry. Most of them (13/16) are located in the central area of the country. Environmental monitoring has been carried out periodically since the year 2000. The data showed that most of measured samples had asbestos levels higher than the standard level (2 fibers/cc).

Neither asbestosis nor any other serious asbestos related disease has ever been reported to the Workmen's Compensation Fund in this country. However, a few pleural thickening cases (13/701) were notified from one study. The latest survey, in 2003, showed that 29% of high risk workers (41/140) had some abnormality in their chest x-rays. Although asbestosis or other asbestos related disease cases have never been reported or detected, the prevention and control of the diseases is still very important. Nowadays, at least 3 government agencies (Ministry of Industry, Ministry of Labor, and Ministry of Public Health) have a major role in controlling asbestos. These organizations have to collaborate to set up and develop control measures to reduce asbestos exposure among high-risk groups.

PL-1-09 presented by TK Joshi

Session: Global Health Impact of Asbestos: Urgent Action is Needed



Asbestos Debate in India and South Asia

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Abstract

Introduction:

Asbestos use in advanced economies declined around 1980 but its use has been aggressively promoted in the South Asian region. India is the world's ninth largest producer and the sixth largest user with 14 large-, and more than 600 small-scale asbestos product manufacturers. Nearly 89% of asbestos mined in India comes from the state of Rajasthan, close to New Delhi. Indian asbestos is comprised of chrysotile mined in the southern state of Andhra Pradesh, tremolite in Rajasthan, and anthophyllite in the state of Karnataka.

Recent Developments

The Central Pollution Control Board of India (CPCB) has placed asbestos based units in 'Red Category' based on their polluting potential. A recent study commissioned by the Board found levels of asbestos in the Indian unorganized sector as high as 18.2 f/cc. The lowest mean fiber count was 2 f/cc, far above the strictest limits of 0.1 f/cc, which would still cause 5/1000 cases of lung cancer and 2/1000 cases of asbestosis. Appalling lack of health and safety measures further compounded this grim situation.

India gets 70% of its chrysotile from Canada which has been assisting the Asbestos Information Centre in New Delhi in promoting chrysotile asbestos use. The asbestos cement product manufacturers launched an advertisement blitz in the year 2002 claiming that chrysotile is safe to use and asserted that WHO and ILO, both advocate its controlled use. The Centre denies that any cases of mesothelioma are occurring in India as a result of chrysotile use. According to the ILO 20,000 asbestos related lung cancers and 10,000 mesotheliomas occur annually across the population of Western Europe, Scandinavia, North America, Japan and Australia alone, but developing countries have much higher risks of exposure. In such countries, asbestos is thus a time bomb, which looks set to lead to an explosive increase in asbestos related diseases and deaths in the next 20-30 years.

Conclusion and Recommendation

With no central mesothelioma registry, shortage of trained pathologists to correctly identify the disorder, lack of occupational safety and health arrangements specially for industrial hygiene assessment of exposure, India has a long way to go. Application of the precautionary principle, and placing a ban on all forms of asbestos use as practiced in Australia and Europe, may offer protection to millions at work and in the community. It could be decades before comparable standards of health and safety could be attained in India despite much stricter norms proposed by Bureau of Indian Standards.

PL-1-10 Noor Jehan

Session: Global Health Impact of Asbestos: Urgent Action is Needed

Asbestos Risks: Occupational and Para-Occupational Health Status in Pakistan

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Abstract

Due to the diverse use of asbestos, sources for environmental, occupational and para-occupational exposure to asbestos dust are common phenomena of life today, particularly in Asia. In Pakistan there are thousands of sources responsible for the dissemination of respirable asbestos dust, including mining, scrapping of old ships, milling, sorting, crushing, grinding, and manufacturing or handling various products according to their functional characteristics. Exposure to airborne asbestos fibers remains an area of great concern in the field of occupational and para-occupational lung disease. Despite extensive studies and the known health effects associated with asbestos, this deadly fiber is still unrecognized and uncontrolled by the Environmental Protection Agencies and Health Departments of the Government of Pakistan.

In this paper the authors will present the qualitative and quantitative health hazards and degree of risk posed by airborne asbestos dust to occupational and para-occupational groups in Pakistan. Various types of samples were collected and analyzed using polarized light microscopy, scanning electron microscopy and X-ray diffraction techniques to confirm the type, concentration and size of airborne asbestos fibers present both indoors and in the ambient air in different locations in Pakistan. The analytical data reveal that the concentration of asbestos fibers is hundreds of times greater than the permissible exposure limit in all samples. Apart from that, hundreds of asbestos miners, industrial workers and women and children living in the vicinities of asbestos facilities were interviewed, and follow-up studies were also conducted to confirm the relationship of the health risks to asbestos. It was found that almost 90% of the patients suffering from various lung diseases were exposed to airborne asbestos fiber somewhere, sometime in their life.

PL-2-01 presented by Stephen Levin

Session 2: Environmental Exposure, Crisis Preparedness and Risk Communication



Health Effects among World Trade Center Responders

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Abstract

Workers and volunteers involved in rescue and recovery efforts at or near the WTC (World Trade Center) site had potential exposures to: 1) a range of environmental toxins, including pulverized cement and glass, asbestos, fiberglass, and other respirable and larger particulate matter – much of it highly alkaline – as well as lead and other heavy metals, PCBs, dibenzofurans, volatile organic compounds and other products of combustion; 2) psychological trauma; and 3) physical hazards including fire, collapsing buildings, falling debris, noise and extremes of temperature. Because of early clinical evidence of occupational illness among workers and volunteers who responded to the 9/11 WTC disaster, The National Institute for Occupational Safety and Health (NIOSH) funded the WTC Worker and Volunteer Medical Screening Program. The primary goal of the program was to develop and implement rapidly a clinical program to provide over 11,000 free standardized exams to WTC responders.

Retrospective review of records from a sample of 250 of the first 500 participants was conducted. Eighty-eight percent reported at least one WTC-related upper respiratory symptom and 78% reported having had at least one WTC-related pulmonary symptom while at the site. Ten months or more after September 11, 2001, 73% had either upper airway symptoms or an abnormal nasal examination or both, and 57% had either pulmonary symptoms or abnormal spirometry or both. Fifty-two percent reported mental health symptoms requiring further evaluation; 21% of the sample reported symptoms consistent with Post Traumatic Stress Disorder. Updated data on health effects will be presented.

A December 2001 study by the New York City Department of Health and the Agency for Toxic Substances and Disease Registry found that 13% of residential dust samples contained greater than 1% asbestos by weight. As much as 4% asbestos by weight has been found in other samples of surface dust. The implications of these data regarding future risk to human health and public health policy will be discussed.

PL-2-02 presented by Atsushi Terazono
Session: Environmental Exposure, Crisis Preparedness and Risk
Communication



Asbestos Emission Caused by Demolition of Buildings after the Great Hanshin-Awaji Earthquake

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Abstract

After The Great Hanshin-Awaji Earthquake that occurred in Japan in 1995, ambient asbestos concentration increased widely over the stricken zone. To determine the relationship between this concentration increase and asbestos emitted from buildings, we performed measurements and researched the emission of asbestos that occurs when toppled buildings are demolished, then employed a diffusion model to examine the effects on the concentration increase. First we determined the use of sprayed-on asbestos in buildings of the earthquake zone. We also investigated asbestos emission on sites where sprayed-on asbestos was used. Then we found that demolition without pre-removal caused the most concern about asbestos emissions and impacts on surrounding areas. Finally, based on the estimated amounts of asbestos emission in the earthquake area, we employed the plume-puff model to calculate the contribution of emissions to the increased asbestos concentration at actual sampling points for monitoring. Results showed a weak positive correlation between calculated values for asbestos concentration rise and actually measured values.

PL-2-03 presented by A.R. Chowdhury REPON
Session: Environmental Exposure, Crisis Preparedness and Risk Communication



Asbestos in Ship-Breaking Business in Bangladesh

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Abstract

Bangladesh is one of the countries in Asia that has been actively involved in commercial ship-breaking for more than two decades. The ship graveyard at Shitakunda, Chittagong is the only 'iron mine' in Bangladesh.

Bangladesh purchases on average 180-250 old ships each year for scrapping. At present, the number of active ship-breaking yards is 30 with around 30,000 workers directly and another 50,000 workers indirectly employed in the trade.

The work in the ship-breaking yards is mostly labour intensive and 100% contract based. No formal worker-management relationship or job security and social safety-net schemes exist for the workers. 98% of the labour in scrapping yards are illiterate, with no former training and 100% are unorganised. Occupational accidents, injury and deaths are very frequent and normal events there.

There are no available data or reports on workers health in ship-breaking industries in the region, more specifically in Bangladesh. This indicates that there is not nor ever has been any systematic monitoring of the health of workers in ship-breaking yards in our region.

Asbestos removed from a ship is still not necessarily regulated as hazardous waste in Bangladesh and elsewhere. In fact, in Bangladesh and some other countries asbestos is recovered by manual crushing and then reprocessed for re-use.

The potential health impacts associated with the use of asbestos are of such a severe nature that compulsory minimum precautions are necessary. This includes workers education/capacity building training, awareness in the ship-breaking yards of the negative effects of asbestos, protection of workers when extracting asbestos from vessels, banning the re-use of asbestos, securing safe disposal of asbestos and measures preventing asbestos from re-entering the market from scrapyards.

In this regard, building a strong action-oriented national and international campaign network or coalition in Asia is essential

PL-2-04 presented by Thambyappa Jeyabalan

Session: Environmental Exposure, Crisis Preparedness and Risk Communication

Consumers' Activities on Asbestos Issues in Malaysia

Thambyappa Jeyabalan

Consumers' Association of Penang (CAP), Malaysia

Abstract

The Consumers Association of Penang submitted a memorandum to the Malaysian Government on 1st May 2001 calling for the banning of asbestos. At the same time CAP had invited Barry Castleman as well as T.K. Joshi to lobby concerned Government Departments, Trade Unions, Politicians, etc.

The Department of Occupational Safety and Health Malaysia called for a meeting on the 22nd February 2002, where 24 representatives were present. These representatives were from Government Departments, Trade Unions, Consumer Groups and various industries involved in the manufacture of asbestos products.

At this meeting there was near total consensus on the ban. The one exception was the Federation of Malaysia Manufacturers whose representative was apprehensive about the trade implications and the competitive edge with our neighbours.

The Director General of DOSH ended the meeting on the note that the country was still not ready for the ban and suggested more information be sought before the ban.

CAP followed it up with further letters and there were responses suggesting that the DOSH was working on the controlled use of asbestos. DOSH has invited us for a meeting regarding the same.

The general feeling throughout country is that asbestos should be banned. In this regard we are collecting signature from various segments of the population and intend submitting a fresh memorandum to the Malaysian Prime Minister urging him to effect the ban.

Community Action

Report with pictures on community mobilization to prevent the removal of asbestos roofing from their homes.

PL-2-05 presented by Robert Jones

Session: Environmental Exposure, Crisis Preparedness and Risk Communication

Living in the Shadow of the Asbestos Hills (The Need for Risk Based Cleanup Strategies for Environmental Asbestos Contamination in South Africa)

Robert Jones

REM, Researcher and Environmental Consultant, Rhodes University Department of Environmental Science, South Africa

Abstract

Asbestos mining occurred in South Africa from 1893 to 2001 resulting in large areas of the Country being made permanently hazardous. In total, an area of many thousands of square kilometers now contains substantial environmental contamination as result of improperly controlled asbestos waste material that is directly attributable to the former mining operations. There is considerable confusion, even in more developed countries, as to how to determine an acceptable level of soil cleanup in areas contaminated by asbestos fibres. A clear standard for soil remediation is needed that is protective of human health. This can only be determined once a clear relationship between residual soil asbestos levels and entrainment of fibres can be established. This report suggests that a Risk-Based Corrective Action Strategy (RCBA) is needed for a safe and sustainable level of rehabilitation. Furthermore, contrary to current practice, rehabilitation should continue beyond the limits of the former mining activity footprint into the adjacent communities where it can be documented that the contamination is the result of uncontrolled fibre release or improper disposal of mining waste. The cleanup strategy should then target those areas that are most likely to lead to exposure such as public places, homes, gardens, pedestrian paths, playgrounds, schools, and roads. Current literature suggests the rehabilitation threshold for soil asbestos contamination in South Africa should be lowered by several orders of magnitude particularly in areas that pose a hazard for human exposure. What is needed most, however, is a comprehensive assessment and cleanup strategy and the funding to carry it out. Lowering of the soil cleanup threshold will no doubt add many hundreds, perhaps thousands of sites that require remediation to the current list. Since the government of South Africa has accepted the responsibility to cleanup the mess left by the mining companies, their work has only just begun.

PL-2-06 presented by Iwao Uchiyama
Session: Environmental Exposure, Crisis Preparedness and Risk Communication



Risk Communication – A Case Study: Accidental Exposure of Nursery School Children

Iwao Uchiyama

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Abstract

Although the use of sprayed asbestos is already forbidden in Japan, it is a worry that on the repair of an existing building or rebuilding, the asbestos currently used may disperse in the environment. A guideline for preventing the scattering of asbestos was released, but there have been some examples, when the guideline was not observed.

Due to lack of effective control measures when extended re-construction of public "S nursery school" in Tokyo was performed in July, 1999, infants and children were exposed to asbestos. At the beginning, since information about the health effects of asbestos exposure was insufficient, their guardians got confused and angry. About 40 days after the occurrence of the incident, communication among guardians, the administration, and two specialists – authorities on health risk assessment and construction health – began. A committee was formed to oversee work to assess health effects, etc. Another specialist and a NPO representative recommended by the guardians also participated in the committee. The health risk of exposure to asbestos was estimated according to a simulated exposure assessment for the case of repair work. The assessment indicated that, as a result of asbestos exposure, most babies and children in the nursery school had incurred an increased lifetime cancer risk exceeding the prescribed threshold of 1:100,000. Therefore, it was decided that a committee should follow up all the exposed children over their entire lifetimes. For this purpose the committee was expanded by the addition of two more guardians.

Dealing with the aftermath of this incident was a new experience for local government. All meetings of the committee were open to the public. Also, there were a number of public hearings and consultations to finalize its report. These procedures were new departures in Japan. However, much time was expended on points of order and producing reports, etc., and not enough attention paid to obtaining counselling for the traumatised guardians. How are they going to explain to their children, when they are older, why they need to be monitored and what risks they face?

PL-2-07 presented by Seiji Ikejiri
Session: Environmental Exposure, Crisis Preparedness and Risk Communication



Lessons of Risk Communication Regarding Remaining Sprayed Asbestos in Local Schools

Seiji Ikejiri
Nerima Ward assembly member, Tokyo, Japan

Abstract

In Tokyo's Nerima Ward, some 60,000 children go to 103 elementary and junior high schools. In 2003-2004, it was found that more than 50,000 square meters of sprayed asbestos remained in school buildings. The figure was almost equal to the amount found in 1987, when the whole nation was thrown into panic about deadly asbestos in school buildings. At that time, the Nerima Ward local government worked harder than other local governments to remove sprayed asbestos. The local government's facility management section and the educational board, teachers and local residents all thought that the asbestos danger was over. When it was clear the danger still existed, the local government asked itself two big questions. Why did such a large amount of sprayed asbestos remain in the school buildings? And how should the government tell school children, parents, teachers and local residents?

From the risk communication methods Nerima Ward adopted, we learned the following. 1) The local government lacked adequate information and knowledge about asbestos risks. This is partly because the central government failed to take adequate measures on environmental asbestos. 2) Problem solving comes from giving, not hiding, information. 3) We lack measures, skills and information to evaluate the risk of being exposed to asbestos in the environment.

PL-2-08 presented by Yuji Natori
Session: Environmental Exposure, Crisis Preparedness and Risk Communication



Malignant Pleural Mesothelioma due to Working at a Stationery Store where Sprayed Asbestos had been Used

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Abstract

A 70 year old male, was admitted to the hospital due to rt. pleural effusion (hyaluronic acid: 596 mg/L) in 2002. A pathology specimen obtained by thoracoscopy showed malignant mesothelioma, epithelial type (calretinin(+), AE1/AE3(+), EMA(+), CEA(-), BerEP4(-)). He was born in a rural area near Osaka city and had no family nor environmental asbestos exposure. He had worked as a farmer from 1949 to 1951, as a weaver at a wire netting company from 1951 to 1966, as a waiter at a coffee shop from 1966 to 1969, and as a manager of a stationery store from 1969 to 2002. He had no direct occupational asbestos exposure. There is sprayed asbestos (crocidolite) on the walls of the 2nd floor of the stationery store which is used as a warehouse. His duties took him to the 2nd floor to deliver and take out and arrange goods for 1 hour every day and to clean the floor once a month. Measurements of airborne asbestos revealed: 1.02-4.2 f/L (2nd floor undisturbed), 14.0 f/L (delivery of goods), 136.5 f/L (cleaning), 0.34-1.13 f/L (1st floor), ND (atmosphere outside the store). Minimum Limit of Determination is 0.15-0.4 f/L. His malignant mesothelioma was due to working at the stationary store, where sprayed asbestos was present.

PL-3-01 presented by Yuuji Natori
Session: Empowerment of Victims and Their Families



Supporting Actions for Asbestos Victims

Yuuji Natori, Fuyushi Nagakura, Kazunori Uekusa, Toshio Hirano, Katsuyasu Iida and Masako Uchida
Mesothelioma Pneumoconiosis Asbestos Center, Japan

Abstract

In 1987, 'Ban Asbestos Network Japan (BANJAN)' was founded to change the Government policies on asbestos. However, it couldn't help enough victims of asbestos nationwide due to a lack of full time staff.

Then, the 'Mesothelioma Pneumoconiosis Asbestos Center' was established in 2003. This 'Asbestos Center' started supporting victims in their demands, such as, for medical treatment and compensation. The 'Asbestos Center' also assists the 'Japan Association of Mesothelioma and Asbestos-Related Disease Victims and their Families' which was founded in 2004.

From September 2003 to August 2004, we received 325 telephone calls, from all over Japan. One third of them were about protection against sprayed asbestos and asbestos containing construction materials. Another third concerned health check-ups for those who had been exposed to asbestos and about asbestosis.

The remaining calls (113 cases) were from patients with mesothelioma and asbestos-related lung cancer and their families. Among them, 36 clients asked for medical consultations and 77 wanted workers' compensation.

Among those 77 cases, 15 sufferers have already been compensated, 22 victims are under examination and 17 are preparing applications.

The remaining 23 cases included misdiagnosed cases, aborted consultation cases and environmental exposure cases. The environmental exposure cases are increasing so we are now starting to follow and examine those cases.

PL-3-02 presented by Kazunori Uekusa
Session: Empowerment of Victims and Their Families



Activities of Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families

Kazunori Uekusa

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan

Abstract

About our Association

The 'Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families' is a nationwide group of patients of asbestos-related diseases, such as, malignant pleural mesothelioma, malignant peritoneal mesothelioma, malignant pericardial mesothelioma, asbestos-related lung cancer, benign asbestos pleuritis and diffuse pleural thickening etc., and their families. The association was founded on February 7, 2004. Before then, those victims and their families felt lonely, but now they are uniting. As of August 15, 44 members and 31 supporters are registered.

About patients

The condition of each patient varies. Some are still fighting against disease after several years. But others have passed away during the past half-year, unfortunately.

There are many types of medical treatment: operations for the removal of the whole lung or part of the pleura, administration of anticancer drugs, and folk remedies including supplements. Sufferers enter the hospitals, go to outpatient department, use palliative care or stay in their homes.

The age of victims is getting younger – some are in their 30s and 40s. Asbestos exposure has mainly occurred in workplaces like construction sites. However, non-occupational and environmental exposure cases are also found.

Actions of Association

Operating a telephone consultation service about medical treatment and workers' compensation is our main activity. Our periodical newsletter and homepage are tools for information exchange. And, local meetings are held in Tokyo, Osaka and Nagoya.

We carried out a research on the real situation of victims and their families in June and called the Ministry of Health, Labour and Welfare for improvements of those situations in August. Our requests cover health check systems, clear diagnosis and future treatments of mesothelioma, payments for folk remedies, workers' compensation and the existence asbestos in the environment.

We were not satisfied with the vague answers of the Ministry officials but participants asked many questions keenly.

PL-3-03 presented by Rinzo Uno
Session: Empowerment of Victims and Their Families

Asbestosis: My Pain from Asbestosis

Rinzo Uno

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan



Abstract

I worked at a shipyard in Yokosuka, 50km south of Tokyo, for 37 years building ships. I also repaired ships for 10 years. Both jobs gave plenty of opportunities for exposure to asbestos. Fixing ships was a busy job so I often worked until late at night in a dusty environment. When construction of a new ship was nearly completed, we often had to modify several parts of the ship so I had no choice but to remove asbestos used for insulation. However, we were supplied masks only from 1978.

20 years ago, a society for victims of pneumoconiosis was established, assisted by a nationwide pneumoconiosis victims' association and workers' unions. I was 50 years old then and became one of the officials of that society. Twelve years before, I was diagnosed with pneumoconiosis. I always bring tissues and trash bags in my briefcase for my cough and phlegm. Every year, about 5 members die from mesothelioma or lung cancer. There are more than 17,000 pneumoconiosis victims in Japan.

I usually have 4 coughing fits every night. Since my coughs are very close together, I can't ingest any medicines. My wife rubs my back and sometimes asks me if we should call an ambulance but I am not able to reply during a fit. During my two-hour fit, she just watches me and I feel more dead than alive.

Actually, it is not only my pain but also the struggle of my family. When I have a light fit while riding on a train, my neighbors sometimes change their seats. This makes me feel very lonely.

I have changed medicines and started using an inhalant 3 years ago. I do not want my children and grandchildren to experience my pain. In Japan, a ban on asbestos use should be introduced immediately. We Japanese always take action slowly. I wonder whether this might not be due to laziness on the part of the Government. The incubation period of asbestos related diseases is 30 to 40 years so it is actually difficult for victims to demand compensation in our legal system. A better system should be introduced to rescue victims.

Please stop killing people this way. My friends are dying one after the other from mesothelioma and lung cancer. And, I cannot forget even for an instant that I also carry a time bomb of asbestos in my lungs.

PL-3-04 presented by Norio Kato
Session 3: Empowerment of Victims and Their Families



Malignant Pleural Mesothelioma: Fighting Against the Disease

Norio Kato

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan

Abstract

Two years have passed since I started suffering from malignant pleural mesothelioma. As the disease progressed, I grew upset in many ways. At first, when I was diagnosed with mesothelioma, I was just confused. Later, my mind felt blank when my doctor informed me that there basically was no treatment. I had many sleepless nights. It was just like being kicked when I was already down.

About 40 years ago, I worked as a welder at a boiler manufacturing company. The reason for my illness was asbestos exposure in those days. I contracted this disease through no fault of my own. I feel very sorry that I will die of mesothelioma with no cure in sight.

Before, I had no information about this sickness and knew no one to whom I could talk about the disease. But, one day I learned about the existence of an “asbestos-hotline” while watching TV. I called in, and learned that it was possible to apply for workers’ compensation. A half year later, thanks to the help of the hotline members, I qualified for workers’ compensation. The notification letter was quite simple but it gave me a great sense of relief.

Until then, I was given anticancer drugs and visited hospitals repeatedly. I really feel in my body that my condition is getting worse day by day and would like to take effective medicines as soon as possible. This is a natural desire, as a patient.

In the past, we didn't know about the dangers of asbestos and inhaled it. But, now we know that asbestos is a carcinogen. No more victims like myself. This is another one of my wishes.



Asbestos Related Lung Cancer: As One of the Victims

Fumitoshi Saito

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan

Abstract

I am now 66 years old. 35 years ago, I started my job as an electrician for houses, shops and factories. I was exposed to asbestos when I used several types of asbestos-containing boards at worksites. I worked in a dusty environment without using a mask.

I heard that there are still many workers who don't know about asbestos and don't use any protection against asbestos. Also, I heard that the number of victims is increasing.

So, as an asbestos victim, I would like to tell you about my case. I was diagnosed with lung cancer in 1998 and had an operation to remove part of my right lung. Currently, I have a cough, difficulty breathing and feel pain around my scar when the weather, especially the temperature and humidity, change. In 2002, a doctor and a nurse came to my house and asked about my job. After answering their questions, I was told that my sickness might be caused by asbestos.

This was the first time I heard about asbestos. I was astonished that I had worked everyday amidst such dust without knowing anything. I surely was exposed to asbestos because asbestos fibers were found in my lung. Then, I tried to apply for workers' accident compensation insurance. The Tokyo Occupational Safety and Health Center helped me and my application was accepted in 2003.

After that, in the February 2004, several victims and their families founded this society. I would like our society to create opportunities for all asbestos sufferers to share their problems and worries. I myself didn't know about asbestos and spent all my working life ignorant of its dangers. So, I try to inform asbestos victims all over the nation about asbestos, particularly about diagnosis, treatment, care for families and compensation



Malignant Pleural Mesothelioma: After Losing My Husband

Kaeko Omori

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan

Abstract

My husband worked for 18 years as a subcontractor of Tokyo Electric Company. His job consisted of maintaining and cleaning power plants. One day, he was told that he had only 3 more months to live because of advanced lung cancer. We were shocked by that report and had him diagnosed again. But the result was malignant pleural mesothelioma, a condition even worse than lung cancer that was caused, we were told, by exposure to asbestos, a material we until then knew nothing about.

My husband had medical treatment for pleural effusion at first. Later, our doctor suggested an operation and we accepted that. However, after the operation, his condition failed to improve. He sometimes said that he wanted to commit suicide by jumping out a window. Two months later, on March 26th, 1998 my husband died of pneumonia.

I applied for workers' accident compensation insurance but the company did not accept it. Then I asked the Tokyo Occupational Safety and Health Center for assistance with the application. Even though Dr. Yasunosuke Suzuki at the Mount Sinai School of Medicine in the US helped us, it took two years to get my application approved.

After that, I requested that the Tokyo Electric Company improve working conditions by having workers use masks for protection, but my request was not accepted. My husband was not told about asbestos by the company, was not supplied any masks, fell sick as a result and died, and yet the company did not offer even an apology.

My husband and I had planned to travel around Japan after his retirement but our dream failed to come true. I don't think my husband died. He was killed by the company and by the Government. So, I would like to tell about my experience to help reduce the number of asbestos victims around the world. Also, I hope that we victims can support each other through our organization.

PL-3-07 presented by Mie Saito
Session: Empowerment of Victims and Their Families



Malignant Peritoneal Mesothelioma: My Experience Nursing My Father

Mie Saito

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan

Abstract

"I am sure I will recover, so, please cheer up. This will encourage me."

My father felt lonely when he was in the hospital. He sent this kind of e-mail to us almost everyday. But we couldn't enjoy reading his e-mails because we already knew that his recovery was hopeless.

We brought my father home from the hospital to spend his last days with us. He was very calm and we were able to have peaceful conversations, unlike when he was in the hospital. I hoped that this kind of situation would continue forever.

One day, he looked different from his usual self and had severe stomach ache in the evening. I gave him painkillers and gathered my family and relatives. When his pain was relieved, my sister and I asked my parents to tell us their stories.

"Where did you meet first?"

"Which places did you go on dates?"

"How did you feel when we were born?" and so on.

My father smiled happily when my sister thanked him for bringing her into this world. We had a blissful time remembering our happy life in the past. When my father breathed with difficulty, we touched his hands and legs gently saying "Daddy, thank you very much" again and again. I prayed that we would remain as a family eternally.

I remember that time as a peaceful moment rather than a sad one.... I think my father will forgive us for not telling him the truth about his condition for a long time, because he was able to spend his last days at home with us.

Our days of struggle against disease suddenly started when my father was diagnosed with abdominal dropsy. In the beginning, terms like "asbestos" and "mesothelioma" totally confused us, but as we worked together to support my father, I came to realize that we were a great family. And that it was of course thanks to my father that we were able to build this family.

We will never accept the use of asbestos, which stole my father from us, and we will continue our activities so that there are no more asbestos victims like my father. My father and my family's struggle for a better society has just started.

Asbestos Related Lung Cancer: After Losing My Husband



Kazuko Furukawa

Japan Association of Mesothelioma and Asbestos-Related Diseases Victims and Their Families, Japan

Abstract

Almost four years have gone by since my husband passed away. He and I did not understand the cause of his disease. He was exposed to asbestos at power stations where he worked as a welder. Several decades later, he began suffering from lung cancer and died.

After his death, I began assisting other victims of asbestos related diseases in need of workers' accident compensation insurance, the same way my husband and myself were also helped by various people when we struggled with the illness. Now, it is my turn to help sufferers together with my husband in Heaven. It is my wish to share the victims' feelings, such as sadness, disappointment and loneliness, and bring them succor and assistance.

Asbestos related diseases destroy workers' lives. After working hard for several decades, they suddenly find out about their terrible physical condition. Then, the lifestyles of workers and their families have to undergo a complete change. They, the victims, are disappointed and angry when they recognize the reason for their sickness: my husband's job was the reason!

I often feel sad and tired when I lose friends who called me about their disease. Like my husband, they express feelings such as "Why I am struggling with this disease?" "If the Government or my company knew that asbestos was a carcinogen, I could never ever forgive them."

Everyone has a right to live. But, how about us victims? Companies that violate our rights and just seek their own profits should compensate victims. Also, the Government should start rescuing victims immediately. For this purpose, I listen to as many victims as possible and relay their suffering to the public.

PL-3-09

Session 3: Empowerment of Victims and Their Families

Parental Anti-Asbestos Activity and its Empowerment

Anon

The guardian of S Nursery School, Japan

Abstract

In 1999, more than 100 children (aged 0-5) were exposed to asbestos in a ward nursery school for 2 weeks. The local government missed asbestos on the blueprint and scheduled school building renovation while the nursery was open, in spite of misgivings by parents about latent asbestos. When the nursery rooms were full of dust and asbestos, the officer in charge neither stopped the renovation work nor let the children leave.

Since the disaster became known, parents took a lead in stopping construction, moving children to safety, disclosing the truth, and taking care of the children and their parents.

Empowerment of Parental activity

(1) Participation of parents:

- Communication;
- Sympathy in anxiety & anger and catharsis;
- Variety of skills.

(2) Specialists:

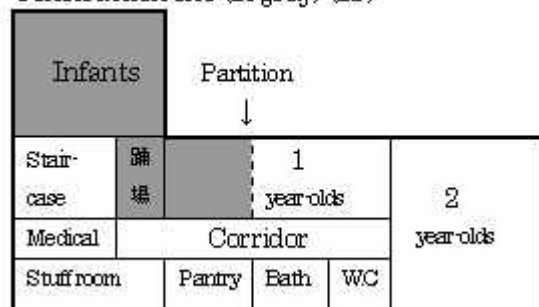
- Knowledge and advice;
- Support parental activity;

(3) Support from outsiders.

(4) Technology and environment:

- Internet;
- Nursing;
- Parents' Association and name lists;
- Speed and efficiency.

Construction site (in gray) (2F)



Barriers to parental activity

- (1) Harm to children.
- (2) Incompatible with child care.
- (3) Ignorance or too much fear of asbestos.
- (3) Lack of understanding by family, co-workers, etc.

Chronology

1999:

- April 21* Announcement of construction work by Principal.
- April* Inquiry about latent asbestos by parent. City said: 'May exist but we do not touch'.
- July 5* Construction started.

July 7 Removal of ceiling; parent found asbestos.
July 8 Removal of wall.
July 9 Removal of asbestos-containing boards in pantry and bathroom.
July 10 Removal of concrete block wall.
 Scattered sprayed asbestos and fine particles.
July 14 Conference with parents and city (1st meeting).
July 15 Sealing the partition.
 Removal of sprayed asbestos at 17 locations.
July 17 Parents' Association assigned investigator.
July 19 City approved asbestos exposure
 Construction stopped
July 21 Moved infants and 1-year olds to 1st floor
July 28 Conference with parents and city (2nd meeting).
 City concealed sprayed asbestos exposure.
 Parents asked for the asbestos to be covered, for children to be moved to a safe building and for asbestos removal specialists to be called in.
August 18 Press revealed sprayed asbestos exposure.
August 20 Conference between parents and city (3rd meeting).
 City's apology for concealing problem.
August 23 Children moved to 1st floor or other nursery.
September 8 Lecture by asbestos specialists.
October 25 1st meeting of Advisory Committee.

2000:

May Asbestos removal from building while all the children are at another nursery.
June Returned to the asbestos-free building.

2001:

June Questionnaire about children's health completed by parents.

2002:

March 10,11 Interim report by Advisory Committee.

2003:

August 29, 30 Presentation of Final Report by Advisory Committee.

2004:

March 7,9 Presentation of measures for children's health.
April 9 1st meeting of Specialists Committee.



Empowerment of Victims and their Families in France

Annie Thébaud-Mony

Sociologist, Director of Research, CRESA, INSERM-University, Paris

Abstract

For many decades French society lived the drama of an epidemic of mesothelioma and other asbestos related diseases without any consciousness of it. The asbestos industry strategy was to hide from the public the health consequences of asbestos manufacture and use. The industry was aided in this strategy of deception by “experts” – scientists, physicians, and lawyers – until the emergence of a strong social movement of victims of asbestos exposure brought to light the epidemic. France banned all manufacture and use of asbestos in 1997.

This social movement of the victims of asbestos exposure in France played an important role in the evolution of the asbestos politics in the nineties. Actually the National Association of Defense of the Asbestos Victims (ANDEVA) is coordinating the action of more than twenty-five local or regional groups.

While victims of asbestos exposure rarely received compensation for asbestos-related diseases before 1995, after that time France saw a spectacular growth in asbestos compensation claims and awards in the civil courts, finally recognizing the fault of the employers.

The paper will emphasize the strategies of two victim’s local groups in France. One of them concerns the first workers’ group – basically women – who have been engaged for more than twenty years in a fight for justice for asbestos victims, not only about individual compensation but also by means of criminal claims against the last employer of the textile factory where they worked. The second one is the history of a collective fight for the responsible management of a polluted site, lead by the family of a victim who died of mesothelioma.

PL-3-11 presented by Fernanda Giannasi
Session 3: Empowerment of Victims and Their Families

Situation and Activities of Asbestos Victims in a Developing Country: ABREA in Brazil

Fernanda Giannasi
Brazilian Association of Asbestos Victims (ABREA), Brazil



Abstract

Comprising principally former asbestos workers, ABREA was founded in 1995 in Osasco, greater São Paulo, Brazil. The initial aim of the group was to locate and screen former workers from the Swiss owned Eternit asbestos plant – the largest such plant in the country that operated from 1939-1993.

ABREA has given social visibility to victims of asbestos related diseases by bringing to light the existence of large numbers of asbestos victims: 60% of an initial group of 1,200 ex-workers were found to be suffering from an asbestos-related disease, whereas according to the Brazilian medical literature fewer than 100 cases had been reported in the period 1900-1998. Without ABREA's intervention none of these workers would have received follow-up examinations or treatment.

In response to numerous lawsuits against them, defendants Eternit and Brasilit began offering pitiful extra-judicial payments to victims, which 1,500 impoverished victims accepted. However, in 2004, following a class action filed by ABREA and the prosecutors, Eternit was ordered to pay compensation to 2,500 victims at an estimated cost of \$160 million (10 times more than the extra-judicial payments would have totaled).

Osasco's model of ABREA has been exported to other regions and we now have 6 active local groups in 3 States. In addition to working directly to aid victims, ABREA has been actively involved in campaigns to obtain national and global asbestos bans. Asbestos is currently banned in 3 states and 15 cities, in Brazil, and there are more than 70 asbestos ban bills pending before the Chamber of Deputies.

There is no controlled use of asbestos. This is a fallacy. Asbestos has to be banned urgently to protect human beings worldwide.

PL-3-12 presented by Roch Lanthier
Session: Empowerment of Victims and Their Families

Environmental Protection In Quebec

Roch Lanthier

The Asbestos Victims' Association of Quebec
(Association des victimes de l'amiante du Québec) – AVAQ



Abstract

The Asbestos Victims' Association of Quebec (AVAQ) was founded to help asbestos victims and their families with medical, legal, environmental and personal issues, to make the population more aware of the situation through the media, and to develop alliances with other groups. AVAQ proposes an international moratorium on the use and production of asbestos until a really safe way of using it can be found and applied everywhere.

The most important asbestos-mining area in Canada is situated in the province of Quebec, in the city of Thetford Mines and its surroundings. In an area of roughly 40 km by 3 km there are more than 30 tailings dumps from both disused and active chrysotile mines. Soil tests show the content of these tailings is 10% chrysotile. Many houses are built very close to the tailings, sometimes less than 100 meters away, and residues from the tailings are widely used for landscaping. Women of this area have the highest level of mesothelioma in the world, twice the second-highest level registered.

AVAQ feels this situation to be very worrisome. We have sampled the air in houses surrounding the tailings to evaluate the concentration of asbestos fibres. Twenty-eight samples were taken in 26 houses situated within one kilometer of the tailings. Out of these, 15 samples showed a concentration of chrysotile fibres higher than the AHERA criterion. This criterion is used in the United States for schools and public buildings. When it is reached, cleaning measures are taken.

Different approaches are being considered to control the pollution caused by these tailings. Four major aspects have to be taken in consideration: the stabilization of the soils, the disposal of the soils, the irrigation of the sites and revegetation. Since the adequate regeneration of these sites would necessitate huge financial and technical resources, it has to be envisioned in the context of an overall environmental and socio-economic regeneration of the area. Focus should be put on high added-value income-generating projects in order to attract private and institutional investment. Other projects developed in similar situations have already proven to be very successful.

PL-3-13 presented by James Fite
Session: Empowerment of Victims and Their Families

The Contributions of Asbestos Victims to World Public Health

James Fite
National Secretary, White Lung Association, Baltimore, USA



Abstract

Those who have been victimized by asbestos exposure are those who lived or worked around asbestos without knowing of its presence or danger. This grouping, through their desire for compensation and for justice, is the engine, which pulls this public health question through world society. The author lists over a dozen contributions to world public health, which have been made by asbestos victims. Asbestos is a very cheap product to use if the entire social cost is not known. When the social cost is fully known asbestos is a very expensive product to use. The asbestos victims have illustrated the hidden social costs in many different ways and therefore deserve the support of the general public and particularly the public and environmental health officials.

PL-3-14 presented by Lorraine Kember
Session: Empowerment of Victims and Their Families

Presentation by the Author of “Lean on Me” Cancer Through a Carer’s Eyes

Lorraine Kember

Author of "Lean on Me: Cancer through a Carer's Eye", Australia



Abstract

My name is Lorraine Kember. I lost my husband and partner of 37 years to pleural mesothelioma in December 2001.

As a small child, my husband had lived in the asbestos mining town of Wittenoom, for a period of seven months. Forty-five years later, he was diagnosed with pleural mesothelioma and given a prognosis of 3 to 9 months. He survived for 2 years.

I have written a book about our experience through his terminal illness, in the hope of bringing strength and inspiration to others. My book is called "Lean on Me" the title taken from a poem I wrote for my husband shortly after his diagnosis.

Through diary excerpts, poems, discussion and insights, my book portrays the devastation and helplessness I experienced upon his diagnosis, and my search for a miracle to save his life. It tells of my acceptance that he was dying, the anticipatory grief I experienced because of it, and my growing strength as I came to realize that, although I could not stop him from dying, I could help him to live.

My acquired knowledge, regarding the progression of his disease and the management of his pain and symptoms, greatly improved the quality of his life. As testament to this, Brian survived for two years, remained active and alert, drove his car for eighteen months after diagnosis, and was not bed bound until three short days prior to his death.

I will discuss with those attending, ways by which they can vastly improve the quality of their loved ones lives – this, through understanding the importance of pain management and symptom control – and demonstrate to them, through my experience, that there is much peace to be gained, in the knowledge that you can make a difference.

My talk will cover areas of anticipatory grief, pain management, symptom control and palliative care.

PL-3-15 presented by Gopal Krishna

Session: Empowerment of Victims and Their Families

Plight of Asbestos Victims in India

Gopal Krishna

Ban Asbestos Network of India – Toxics Link



Abstract

This paper presents the plight of asbestos victims in India. It highlights the governmental role in the continuing import of white asbestos, which has been banned in almost 40 countries world over, and the toll it has taken. The way the Indian Government has sacrificed even the pretence of representing the public interest at the altar of corporate interest's naked lust for profit and at the cost of human life is illustrated through its stance at the World Trade Organization. The Government is meant to represent the public interest, but by its promotion of use, manufacture and import of white asbestos it compromises the very premise of its existence. Transparency, accountability and liability of the Government and Corporations, which are involved in the asbestos trade, assume enormous significance given the incontrovertible evidence against this killer fiber.

PL-4-01 presented by Yasunosuke Suzuki

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Asbestos Fiber Analysis in the Lung and Mesothelial Tissues from 168 Cases of Human Malignant Mesothelioma

Yasunosuke Suzuki, Steven R. Yuen and Richard Ashley
Mount Sinai School of Medicine, New York

Abstract

To identify and characterize asbestos fibers associated with the induction of human malignant mesothelioma, we have investigated type(s), number and size of asbestos fibers detected in the lung and mesothelial tissues taken from 168 cases of human malignant mesothelioma (including 164 males and 4 females; 156 pleural and 12 peritoneal; definite or probable; autopsy or biopsy samples). Their occupational history was diverse including asbestos insulators, pipe fitters, electricians, shipyard workers, sheet metal workers, Navy service men, power plant workers, boiler men, brake lining mechanics, fire fighters, family members of asbestos workers, etc. For the tissue sampling, a bulk tissue digestion, or ashing technique of tissue sections, or both were used. A high-resolution analytical electron microscopy was used for the identification of asbestos fibers. Results were as follows: (1) asbestos fibers were present in almost all of the lung and mesothelial tissues in these cases. The average number of the fibers in these tissues was much greater than that found in the general population. (2) The most common types of asbestos fibers in lung were either an admixture of chrysotile with amphiboles, amphibole alone, and occasionally chrysotile alone. In the mesothelial tissues most asbestos fibers were chrysotile. It was suggested that such a disproportion of asbestos types between the lung and mesothelial tissues was caused by chrysotile fibers' strong capacity to translocate from the lung to the mesothelial tissues. (3) In some cases, the only asbestos fibers detected in both lung and mesothelial tissues were chrysotile fibers. (4) The majority of the fibers in these tissues were short ($< 5\mu\text{m}$ in length) and thin ($< 0.25\mu\text{m}$ in width). It was concluded that to determine the types of asbestos fibers associated with the induction of human malignant mesothelioma, both lung and mesothelial tissues must be investigated and that short, thin asbestos fibers should be included in the list of fiber types contributing to the induction of the tumor.

PL-4-02 presented by Kohki Inai

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Mesothelioma in Japan – It's Pathological Characteristics

Kohki Inai, Yukio Takeshima and Kei Kushitani

*Department of Pathology, Graduate School of Biomedical Sciences, Hiroshima University, Japan
Asbestos Hazards and Mesothelioma Study Group, Japan*

Abstract

In Japan, an epidemiological study has indicated a progressive increase of mesothelioma during the last decade. In 2003, a research group for diagnosis and treatment of mesothelioma was formed, and a comprehensive survey on occurrence and diagnosis of mesothelioma in Japan was performed. On the basis of making enquiries to authorized pathologists, the Japanese Society of Pathology gathered information about 854 cases of mesothelioma diagnosed pathologically during the period from 1995 to 2002 from 116 institutions. Analyses of these cases showed the following: the male / female ratio was 634 (77.3%) / 186 (22.7%); the locations of tumors were 651 cases (77.4%) in the pleura, 111 cases (13.2%) in the peritoneum, 24 cases (2.9%) in the pericardium, 5 cases (0.6%) in the tunica vaginalis testis and 50 cases (5.9%) of unknown or indeterminate location. The materials for diagnosis were as follows: 211 cases (25.1%) by autopsy, 231 cases (27.5%) by operation, 202 cases (24.0%) by needle biopsy, 143 cases (17.0%) by VATS biopsy and 106 cases (12.6%) by open biopsy (including double answer). The cases were divided by histological classification as follows: 403 cases (47.9%) of epithelioid type, 153 cases (18.2%) of sarcomatoid type, 180 cases (21.4%) of biphasic type. Immunohistochemical stainings were done at the rates of 76.7% on cytokeratin, 52.5% on EMA, and 42.7% on calretinin and the proportions of positive cases were 92.5% in cytokeratin, 74.5% in EMA and 79.7% in calretinin. Tissue blocks of 130 cases among 854 cases could be offered from each of the institutions. The diagnosis of mesothelioma and its histological subtypes were re-confirmed by the research group and immunohistochemical stainings were done according to the new information. On the basis of the results of this investigation, immunohistochemical methods useful for the accurate diagnosis of mesothelioma will be able to be presented.

PL-4-03 presented by Kenzo Hiroshima

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Clinicopathological Study on Malignant Pleural Mesotheliomas

Kenzo Hiroshima¹, Akira Iyota¹, Kiyoshi Sibuya¹, Toshikazu Yusa², Takehiko Fujisawa¹ and Yukio Nakatani¹

¹*Chiba University, Japan*

²*Chiba Rosai Hospital, Japan*

Abstract

We investigated the clinicopathological features of cases with malignant pleural mesothelioma (MPM), which had been operated on at our institutes. There were nine cases in which pleuropneumonectomy had been performed for MPM (1 epithelioid, 3 biphasic, 5 sarcomatoid) between 1995 and 2003. The age of the patients was from 41 to 69 years old, and all were men. Four cases had occupational exposure to asbestos. Five cases were with stage II and four with stage III. The level of hyaluronic acid in pleural effusion was high in most of cases. Tumor cells in epithelioid mesothelioma and in biphasic mesothelioma were positive for PAS staining and Alcian Blue staining, but tumor cells in sarcomatoid mesothelioma were positive for them in only one case. We evaluated the results of immunohistochemical staining according to the histological elements. All epithelial elements (EE) reacted for cytokeratin AE1/AE3, EMA, and HBME1, however, some EE reacted for vimentin and calretinin. On the other hand, all the sarcomatous elements (SE) were positive for vimentin and calretin, however, some SE were positive for cytokeratin AE1/AE3 and none were positive for EMA and HBME1. EE and SE were positive for D2-40 in some cases. Five cases were alive and four died after the surgery, and two-years survival was 44%. Immunohistochemical panels, especially calretin, were helpful in the diagnosis of MPM. Although the prognosis for MPM is poor, there are some cases whose prognoses improve with surgical removal of the tumor.

PL-4-04 presented by Kazuhiko Takabe

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



PCR/SSCP Analyses of Epidermal Growth Factor Receptor (EGFR) Mutations in Malignant Mesothelioma

Kazuhiko Takabe¹ and Hirotarō Miura²

¹*Tsuchiura Kyodo Hospital, Japan*

²*Yokosuka Kyosai Hospital, Japan*

Abstract

Introduction:

The tyrosine kinase inhibitor gefitinib, which targets the epidermal growth factor receptor (EGFR), has been approved as a single-drug therapy for non-small-cell lung cancer (NSCLC) in Japan. However, objective tumor responses were observed in only 10-19 percent of patients. Recently, Lynch et al. reported that mutations in exons 19 and 21 of the EGFR gene correlate with the clinical responsiveness to gefitinib in NSCLC patients, and it is suggested that these mutations may be predictors of the responsiveness to gefitinib. As most malignant mesothelioma (MM) tumors express EGFR, as shown by immunohistochemistry, it is thought that MM may also have a response to gefitinib, however, the usefulness of gefitinib for the treatment of MM has not been determined clinically until now. As the EGFR gene mutations may also predict the responsiveness to gefitinib in MM patients, we analyzed the presence of EGFR mutations in MM tumor tissues by the PCR/Single Strand Conformation Polymorphism (SSCP).

Methods:

DNA was extracted from MM tumor tissues using the standard methods. Exons 19 and 21 of the EGFR gene were amplified by PCR and the PCR products were analyzed by SSCP for the presence of mutational bands. DNA extracted from the tissue of 14 lung adenocarcinoma tumors was also examined in the same way.

Results:

Eleven MM tissues were examined. All were from males with a mean age of 69 years (range; 43 to 87 years). The histology was 3 epithelial, 5 mixed, and 3 sarcomatous. While four of the fourteen lung adenocarcinoma cases demonstrated EGFR mutations (two cases each of exons 19 and 21), no mutations were detected in any of the 11 MM samples.

Conclusion:

The presence of EGFR mutations in 28% of the lung adenocarcinoma samples confirms the usefulness of PCR/SSCP analyses as a screening test. Although the present study could not demonstrate EGFR mutations in the MM samples, more MM cases should be examined to obtain definitive conclusions, as there may be differences in the mutational status between the histological subtypes of MM tumor tissues.

PL-4-05 presented by Takemi Otsuki
Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Cellular Characteristics of an Asbestos (Chrysotile-B) Resistant Subline of HTLV-1-Immortalized Human Polyclonal T Cell Line (MT-2)

Takemi Otsuki, Yoshie Miura, Akiko Takata-Tomokuni, Fuminori Hyodoh, Hironobu Katsuyama*

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Abstract

The HTLV-1 immortalized human polyclonal T cell line, MT-2, was continuously exposed to low doses of chrysotile-B (CB) for more than half a year to estimate the long-term cell biological effects of silicate on the human T lymphocytes. The appearance of apoptosis, production of cytokines and expression of several genes will be discussed.

PL-4-06 presented by Tamako Nishiike

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases

Exposure of Macrophages to Asbestos or Man-Made Mineral Fibers Causes Oxidative Stress through a Change in the Levels of S-nitrosothiol and Cellular Glutathione

Tamako Nishiike, Yasumitsu Nishimura, Yasuhiko Wada, Hiroshi Iguchi

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Abstract

Alveolar macrophages (AMs) phagocytose asbestos and/or man-made mineral fibers (MMMFs) inhaled into the alveolar space, and are stimulated to express inducible nitric oxide (NO) synthase and continuously generate a large amount of NO and other reactive nitrogen species (RNS). Moreover, AMs stimulated by pathogenic particles generate a large amount of reactive oxygen species (ROS) and free radicals. It is widely accepted that ROS and RNS exert oxidative stress on cells and tissues, and cause inflammation and other pathological changes. NO can non-enzymatically react with the free sulfhydryl groups (-SH) of reduced glutathione (GSH) and various proteins to form S-nitrosoglutathione (GS-NO) and S-nitrosothiols (RS-NO), respectively. RS-NO, including GS-NO potentially affects the function of enzymes and other proteins and causes cellular and tissue damage. However, the role of nitrosation of SH groups in GSH, enzymes and other proteins in the pathogenesis of asbestos-induced diseases remains to be further studied. In the present study, we focused on the extent of thiol-nitrosation with NO.

RAW264.7 cells and J774 cells of murine macrophage cell lines were cultured with chrysotile B (CH) asbestos, crocidolite (CR) asbestos or MMMFs comprised of glass wool (GW), rock wool (RW) or ceramic (RF1). All of these fibers significantly increased NO production and RS-NO formation in the culture with macrophages. CH, CR and GW significantly decreased the level of GSH in RAW264.7 cells. A large portion of the increased RS-NO may be in the form of GS-NO, because GSH is the most abundant thiol substance in the cell. These results indicate that macrophages exposed to asbestos or MMMFs are subject to oxidative stress not only through the generation of ROS and RNS, but also through decreases in the level of the cellular antioxidant, GSH, by GS-NO formation. The increase of RS-NO in macrophages exposed to asbestos or MMMFs may deserve more attention as the indicator of continuous oxidative stress on cells and tissues, which causes inflammation and involves the development of asbestos-induced diseases.

PL-4-07 presented by Yasumitsu Nishimura

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases

Functional Alteration of Alveolar Macrophages Exposed to Asbestos Fibers: the Production of TGF- β , Apoptosis and the Generation of Multinucleated Giant Cells

Yasumitsu Nishimura, Tamako Nishiike, Yasuhiko Wada, Hiroshi Iguchi

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Abstract

Alveolar macrophages (AMs), which can produce TGF- β as well as inflammatory cytokines, have been thought to play a critical role in evoking lung fibrogenesis in asbestosis. In the present study, we performed experiments involving intratracheal instillation of male Wistar rats with chrysotile B (CH) and in vitro exposure of AMs to CH, to examine the production of TGF- β 1, apoptosis and generation of multinucleated giant cells (MGCs) by the AMs. Five days after instillation with 4 mg of CH, bronchoalveolar lavage fluids (BALFs) recovered from the rats showed increases in the production of TGF- β 1 and the percentages of annexin V (Anx)⁺PI⁻ early apoptotic cells, Anx⁺PI⁺ late apoptotic cells and DNA-degraded cells, and showed the generation of MGC. The AMs in these BALFs produced a significantly higher amount of TGF- β 1 after culture for 5 days than those from the control group of rats. The AMs from the control group produced a high amount of TGF- β 1 in the culture with 10 μ g/ml CH. However, apoptosis of AMs was not induced at this concentration of CH, while 50 μ g/ml CH markedly induced increases in the percentages of Anx⁺PI⁻, Anx⁺PI⁺ and DNA-degraded apoptotic cells. CH and the apoptotic cells did not directly induce the generation of MGCs by AMs in vitro, in contrast to the results obtained after intratracheal instillation with CH. These results indicate that AMs can autonomously augment the production of TGF- β 1 regardless of the interaction with lung epithelial cells or fibroblasts. In addition, it was found that the exposure of AMs to CH can induce the two different responses of apoptosis and TGF- β 1 production, dependent on the CH dose, and that these responses are independent of each other. Suppression of AMs with such fibrogenic ability may be crucial in preventing the progress of lung fibrogenesis.

PL-4-08 presented by Gunnar Hillerdal

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Clinical Diagnosis of Asbestos-Related Diseases

Gunnar Hillerdal

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Abstract

Which diseases are related to exposure to asbestos?

The main findings and diseases are in the thorax: the lung itself or the pleura. There are benign and malignant diseases in both sites. The benign pleural diseases are plaques, asbestos pleurisy, and diffuse pleural fibrosis; in the lung, asbestosis. The malignant ones are bronchial carcinoma in the lung and malignant mesothelioma in the pleura.

PLEURAL LESIONS

Pleural plaques

Pleural plaques are discrete, elevated, opaque, shiny, rounded lesions. They characteristically occur on the parietal pleura, i.e. the inside of the chest wall and do not affect the lung. As a result, they do not cause any symptoms, and can only be diagnosed by chest X-ray. The diagnosis can be difficult with small plaques and over-diagnosis as well as under-diagnosis is very common. Any symptoms (dyspnoea, pain etc) should not be attributed to the plaques but investigations for other causes should be performed. The plaques are rarely seen until 30 years or more have passed after exposure.

Benign asbestos pleurisy

Pleural effusion may be caused by inhalation of asbestos; this is an early manifestation and is usually an exudate. On rare occasions it may persist for months or years. It may recur on the same or the opposite side. It can occur suddenly in asbestos-exposed persons. It can be of any magnitude, but rarely amounts to up to a litre or more. Despite this, the patients are often free of symptoms, and the condition can be a surprise finding at X-ray. The exudate is often haemorrhagic, but can also be serous or fibrinous, and can contain eosinophils. Lymphocytes are common. Residually, a diffuse thickening of the pleura or a rounded sinus may be observed but often the exudate disappears without trace.

To make the diagnosis of Benign Asbestos Pleural Effusion, three criteria should be fulfilled:

1. Exposure to asbestos
2. Exclusion of other causes, especially malignant disease
3. Observation for at least two years to exclude a mesothelioma

Diffuse pleural thickening

The main radiological difference from plaques is that the plaques are always sharply demarcated against the lung parenchyma, while the visceral lesions blend more diffusely with it. This is particularly evident on CT scan but with some experience it can be seen on standard chest roentgenograms as well. Fibrous strands, or "crows feet", can occur and reach into the lung parenchyma and deform bronchi when shrinking of the fibrous tissue occurs with time. When the

bronchi are bent, there might be an obstruction of them - with an atelectasis of the lung parenchyma peripheral to the deformation as a result. This is the so called "rounded atelectasis" which today is by far most commonly seen in patients exposed to asbestos. The diffuse pleural fibrosis can cause compression of the lung and can cause considerable decrease in lung function.

In a patient with a typical plain chest roentgenogram and CT scan suggesting rounded atelectasis and a normal bronchoscopy, one needs only to follow the patient with chest roentgenogram. If there is uncertainty, fine-needle biopsy can be performed.

Mesothelioma

The most common first symptoms are dyspnoea and chest pain. More rarely, patients present with fever, cough and fatigue. Radiologically, fluid is usually seen. The exudate can be bloody but is almost as often serous. Ten to 20 per cent of mesotheliomas will not cause exudates, and as the disease advances the fluid will usually diminish or disappear. If the exudate is small and the pleural thickening slight, pulmonary embolism or unspecific pleurisy can be suspected at first. Sooner or later invasion by the tumour will cause severe pain, necessitating strong analgetics. The affected hemithorax will shrink and not move with breathing. A CT scan should always be made, but the suspicion must always be confirmed by a pleural biopsy. In some cases, diagnosis can be very difficult and therefore considerably delayed despite large biopsies.

Therapy is unfortunately difficult. Very early cases can be treated with surgery, followed by radiation and/or chemotherapy; in inoperable cases, we now have some chemotherapy regimes which have shown definite effect. Thus, diagnosis is very important.

PARENCHYMAL DISEASES

Asbestosis

The term asbestosis should be restricted to parenchymal fibrosis due to asbestos exposure. In other words, pleural changes only are not asbestosis - though they can, of course, occur at the same time as true asbestosis.

Symptoms and signs

The cardinal symptom is dyspnoea (shortness of breath). This is a non-specific symptom, common in many other cardiopulmonary disorders. An early sign is crepitating rales, especially at the lung bases. However, they are not specific for asbestosis. Clubbing of fingers can occur but is in fact fairly rare, seen in less than a third of the cases.

Radiology

A diffuse irregular interstitial pattern coupled with evidence of pleural disease, e.g., plaques or extensive pleural thickening in a person with known exposure, presents little diagnostic difficulty. The early stage of asbestosis can be impossible or very difficult to see on a chest roentgenogram, and both over- and under-diagnosis can occur. A confounding factor is smoking, which will cause a significantly higher incidence of small irregular opacities. The radiological changes become more evident when the disease progresses.

CT scanning, especially with the high resolution technique, can discover asbestosis earlier than ordinary chest X-ray.

Pulmonary function

The classical finding in asbestosis is the same as in all types of lung fibrosis, i.e. a restrictive lung disease. There is convincing evidence that an asbestos related pulmonary abnormality can occur in

the absence of definite radiologic change.

Clinical Diagnosis

For the diagnosis of asbestosis one should have:

1. A reliable history of exposure.
2. An appropriate time interval between exposure and detection.
3. X-ray changes compatible with lung fibrosis.
4. A restrictive lung function.
5. Inspiratory rales at the lung bases (not obligatory).

It should be noted that other types of lung fibrosis can occur even if the patient has been exposed to asbestos; some of these might be possible to treat, so in severe cases it is advisable to have a lung biopsy for a definite diagnosis.

Lung cancer

The lung cancer caused by asbestos is no different from other lung cancers. It should be investigated and treated as any other lung cancer. The important thing is to elucidate the asbestos exposure, because this could have economical importance for the patient.

Should we follow persons exposed to patients? What would be the purpose of such surveillance?

The purpose could be to find diseases related to exposure for either scientific or compensatory purposes, or to find signs of diseases in order to be able to prevent further morbidity or mortality. Surveillance could also be due to legal causes or to psychological reasons (the surveilled persons or the doctor feel safer; however, this is not a good reason to do surveys unless it does have some medical benefits).

The most important of these purposes (for patient, doctor and society) is the medical one. The only disease at the moment which could be cured by early discovery is lung cancer. Thus, there are those who suggest that CT scans should be performed with regular intervals. Until the cost-benefit of this has been proven, it cannot be recommended, however.

PL-4-09 presented by Bruce Robinson

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



New Treatments and Early Detection of Mesothelioma Using Blood Tests

Bruce Robinson

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Abstract

Until recently there has been an absence of effective therapies for MM. Two new chemotherapy regimes, gemcitabine-cisplatin and pemetrexed-cisplatin have both shown response rates of over 30%. We are using advanced molecular and cellular approaches to determine how these therapies can be combined with surgery and immunotherapy to enhance survival.

Mesothelioma represents one of the few animal models of cancer in which the mouse tumour is similar to the human tumour, so preclinical studies are valuable. Allo MHC class I transfectants were rejected and B7-1-transfection markedly delayed MM outgrowth, although eventually tumours formed, contemporaneous with reduction in anti-tumour cytotoxic activity. The data suggest that cytokine gene therapy of mesothelioma will be most effective when combined with a surgical debulking.

Based upon successful tumor reduction in animals, a Phase I clinical trial in pleural mesothelioma patients was carried out, using a recombinant vaccinia virus (VV) expressing the human IL-2 gene. VV-IL-2 mRNA was detected in serial tumor biopsies for 3-6 days after injection, but uniformly declined to low levels by day 8. Anti-VV IgG antibody titers were induced but did not have any bearing on VV-IL-2 mRNA expression. Autologous tumor lysates injected with GM-CSF induce changes in DTH and Western blot reactivity in around 25% of mesothelioma patients.

Real improvement will require a method of early diagnosis. Soluble members of the mesothelin-family proteins (SMRP) are elevated in the serum of over 80% of mesothelioma patients. Importantly, significant elevations of SMRP can be detected several years prior to presentation with MM. Thus determination of SMRP in serum may be useful in the diagnosis of MM, may be an early marker of disease and may prove useful in screening at-risk individuals.

PL-4-10 presented by Shigeru Miyata

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Irinotecan-Based Chemotherapy for Malignant Pleural Mesothelioma

Shigeru Miyata, Takashi Nakano, Aki Murakami, Sei-ichi Nobuyama, Taku Okukubo, Shin-ichiro Iida, Kozo Kuribayashi, Mitsutomi Miyake, Hitoshi Nakamura

Department of Internal Medicine, Division of Respiratory Disease, Hyogo College of Medicine

Abstract

The incidence of malignant mesothelioma (MM) is rising along with the increasing use of asbestos epidemiologically. MM is a highly lethal and particularly refractory tumor. Several phase II and III studies against MM have been performed over the past 2 decades to demonstrate response rates of 0 to 48 %, with median survivals of only 7-15 months. Irinotecan (CPT-11) is a potent topoisomerase 1 inhibitor and has a definite cytotoxic activity against mesothelioma in the preclinical studies. Intravenous administration of CPT-11 can produce adequate distribution of CPT-11 and the more active metabolite SN-38 into the pleural fluid and allows SN-38 to come into contact with mesothelioma cells in the thoracic cavity. CPT-11 (125mg/m²) seems to have minimal single-agent activity in patients with MM, however it has a response rate of 26% (CPT-11: 60mg/m²) and 24% (50mg/m²) in doublet combinations with cisplatin (CDDP), and 41% (100mg/m²) in triplet with CDDP+Mitomycin C. However, high dose CPT-11 (190-200mg/m²) has no activity with docetaxel, and 14.2% with gemcitabine. CPT-11 is clearly a useful agent against MM, and is worthy of further study in combination with other drugs. CPT-11-based treatments for the patients with MM will be discussed.

PL-4-11 presented by Antti Tossavainen

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases

Helsinki Criteria for Asbestos-Related Disease

Antti Tossavainen

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Abstract

The International Expert meeting on Asbestos, Asbestosis and Cancer was convened in Helsinki on 20-22 January 1997 to discuss disorders of the lung and pleura and to agree contemporary criteria for their diagnosis and attribution with respect to asbestos. The group decided to name the consensus report as 'The Helsinki Criteria' (Scand J Work Environ Health 1997;23:311-316).

The clinical diagnosis of asbestos-related diseases is based on a detailed interview of the patient and occupational data on asbestos exposure, signs and symptoms, radiological and lung physiology findings, and selected cytological, histological and other laboratory studies. Asbestosis is generally associated with relatively high exposure levels. Radiological findings of small opacities (ILO grade 1/0) are usually regarded as early stage of asbestosis. Smoking effects should be considered in the evaluation of lung function tests and respiratory symptoms. A histological diagnosis of asbestosis requires the identification of diffuse interstitial fibrosis in well inflated lung tissue plus the presence of asbestos bodies or uncoated fibres. Low exposures from work-related, household and natural sources may induce pleural plaques but for diffuse pleural thickening, higher exposure levels may be required.

For mesothelioma, an occupational history of brief or low-level exposure should be considered sufficient. A lung fibre count above the background range, radiological findings or histopathological evidence can also relate a case of pleural or peritoneal mesothelioma to asbestos exposure. Smoking has no influence on the risk of mesothelioma.

All major histological types of lung cancer can be related to asbestos. Clinical signs and symptoms are of no significant value in deciding whether or not an individual case is attributable to asbestos. One year of heavy exposure (manufacture of asbestos products, asbestos spraying, insulation work, demolition of old buildings) or 5 - 10 years of moderate exposure (construction, shipbuilding) may increase the lung cancer risk 2-fold or more. A minimum lag-time of 10 years from the first exposure is required. A cumulative exposure of 25 fibre-years was estimated to double the risk of lung cancer. The presence of asbestosis is an indicator of heavy exposure and can contribute some additional risk of lung cancer beyond that conferred by asbestos exposure alone. A 2-fold risk of lung cancer is related to retained fibre levels of 2 million ($>5 \mu\text{m}$) or 5 million ($>1 \mu\text{m}$) amphibole fibres per gram dry lung tissue. This concentration is approximately equal to 5000 to 15000 asbestos bodies per gram dry tissue, or 5 to 15 asbestos bodies per millilitre of bronchoalveolar lavage fluid. Tobacco smoking does not detract from the risk of lung cancer attributable to asbestos exposure.

PL-4-12 presented by Hirotaro Miura

Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Diffuse Pleural Thickening Related to Asbestos Exposure

Hirotaro Miura

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Abstract

Introduction:

Asbestos exposure causes fibrosis of pulmonary parenchyma and/or pleura. The former is pneumoconiosis, named asbestosis, followed by various grades of respiratory dysfunction. Diffuse pleural thickening (DPT) is a disease involving diffuse fibrosis of pleura also often followed by severe pulmonary dysfunction. It is always the case that the visceral pleura is affected by this disease, though the parietal pleura is also frequently damaged and accompanied by adhesion of both pleura, in contrast to pleural plaques. Asbestos exposure is known to be one of the causes of DPT.

Rationale:

To clarify the incidence of DPT and estimate the grade of pulmonary dysfunction due to DPT, the CXRs, CTs including HRCTs, spirometries and medical records of checkups for retired asbestos workers were examined. All of them had CXR findings of 1/0 or less grade compared to the ILO standard films and almost all of them had clear pleural plaques.

Examinees:

From 2001 to 2003 there were 93 examinees who had CXR and CT at the same time, pulmonary function tests within 3 years, and no history of disease affecting the pleura except that associated with asbestos exposure.

Results:

Among the 93 examinees there were 8 (9%) with bilateral DPT on CXR which had signs of affected visceral pleura on CT. Their spirometries showed that the average of VC% was 65.0% (ranged from 47.1% to 96.7%) and the average of FEV1% was 80.7% (ranged from 61.1% to 95.2%). There were 2 persons having the VC% under 60%.

Conclusion:

About 9% of the persons having no obvious asbestosis but clear asbestos exposure were revealed to be suffering from diffuse pleural thickening and had a tendency to restrictive pulmonary function. One fourth of them displayed severe pulmonary dysfunction. The follow-up of the patients with diffuse pleural thickening related to asbestos exposure must be thorough.

PL-4-13 presented by Narufumi Suganuma
Session: Medical Aspects: Surveillance and Treatment of Asbestos-related Diseases



Differentiating between Benign Pleuritis and Mesothelioma by Radiograph using ILO 2000 Classification

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Abstract

A mesothelioma epidemic in asbestos consuming countries is anticipated within 30 years. Recognition of this malignant disease is essential in order to avoid advanced cases being found after it is too late to apply a possible cure. We aimed to depict radiographical findings of benign pleural abnormalities and those indicative of malignant mesothelioma. The ILO 2000 International Classification of Radiographs of Pneumoconioses, a widely used classification for medical screening of pneumoconioses, was revised in order to systematise decisions on types of pleural thickening: plaque and diffuse pleural thickening. The costophrenic angle obliteration is taken as a prerequisite of diffuse pleural thickening, that is usually formed after benign pleural effusion. Existence of advanced pleural thickening makes it difficult to detect other abnormal findings, including malignancy, on radiographs. In this presentation, some cases with malignant complication are shown to depict differences between benign pleural diseases and malignant mesothelioma. There is a need to distribute clinical information on benign and malignant cases related to asbestos among Asian countries in order to standardize the medical screening system in this region. In the present study, some cases with mesothelioma or benign pleuritis on chest X-ray are presented.

PL-5-01 presented by Bob Ruers
Session: Compensation for Damages due to Asbestos

Compensation for Environmental and Domestic Exposure Cases

Bob Ruers

Former Dutch Senator, founding member of Dutch Asbestos Committee and Solicitor, the Netherlands

Abstract

Before the 1960s asbestos diseases were typically regarded as occupational diseases. This view changed dramatically when Wagner et al. published the results of their South African mesothelioma study, showing that a large part of the mesothelioma victims in the Cape Province had never had any occupational exposure to asbestos. They encountered mesotheliomas in housewives, domestic servants, shepherds, farmers and office workers, as well as men and women who during their youth had lived in the vicinity of asbestos mines or played on the dumps of these mines.

After the Second World War, the production and use of asbestos increased enormously. Asbestos has been used in well over a hundred products, mainly asbestos cement products. The consequences of this widespread use have now become clearly visible. Not only are we confronted with both large numbers of victims, but huge amounts of asbestos cement waste material have found their way into the environment, especially in areas close to asbestos industries, creating even more victims.

In order to receive compensation, asbestos victims need to go to great lengths. Trying a case in court is both expensive and time consuming, especially for victims of non-occupational exposure. Often they experience great difficulties in locating the source of exposure and establishing legal causation. The long latency period works as a disadvantage as well.

Until 1990, the world asbestos cement industry was owned by just a handful of multinationals. These multinationals are blind to the harmful consequences of their products. They refuse to bear any responsibility whatsoever, especially where the third world is concerned. Therefore, it is of utmost importance that asbestos victims and their organisations support and inform each other worldwide. Only in that way can we make sure that all asbestos victims, wherever they live, can obtain adequate compensation for their damages.

PL-5-02 presented by Sugio Furuya
Session: Compensation for Damages due to Asbestos



Workers' Compensation in Japan

Sugio Furuya

Secretary General

Japan Occupational Safety and Health Resource Center (JOSHRC)

Abstract

Each country has its own compensation scheme, different from other countries, reflecting historical, social and other backgrounds. The author considers the availability of compensation may be an indicator of the “sense of human rights” within a country. Also, to obtain justice for asbestos victims and their families should be a common aim for all of us.

Asbestos litigation cases in Japan are very rare. Almost all compensated cases are employees’ cases and are awarded benefits from the Workers’ Accident Compensation Insurance scheme, which is administered by the Government.

The Japanese official schedule of occupational diseases includes asbestosis (as a type of pneumoconiosis), asbestos-related lung cancer and mesothelioma. Recently, benign asbestos pleural effusion and diffuse pleural thickening also became compensable diseases on a case by case basis. Asbestos-related disease victims can receive Medical Benefit (100% of the average wage), or Absence Benefit (80%) if he/she cannot work, without any time limitation (i.e. until cured or death). After a victim’s death, dependents can claim Survivors Benefit in the form of a pension. Even if a worker suffers from an asbestos-related disease after departure or retirement from the job in which he/she had been exposed to asbestos, he/she can receive compensation benefits. And, even if an employer hasn't paid insurance premiums, a worker can receive compensation benefits. However, it is estimated that the proportion of compensated cases with respect to all eligible cases remains at the level of only a few percent, in Japan.

Under-reporting, under-compensation and under-diagnosis are common problems for all countries. In addition, in many developing countries, a victim and his/her family cannot receive workers’ compensation after his/her departure or retirement from the asbestos-exposed job, despite the fact that asbestos-related cancers often appear long after exposure. This largely explains the invisibility of asbestos-related cancers in developing countries.

Initially, the author will present a comparison of workers’ compensation for asbestos victims and their families in Japan and Europe.

PL-5-03 presented by Akira Morita
Session: Compensation for Damages due to Asbestos

Summary of Asbestos Litigation in Japan

Akira Morita

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Abstract

In 1970s and 80s workers who suffered asbestosis after years of manufacturing asbestos products or spraying asbestos in construction sites filed damage suits against the asbestos product manufacturers or related companies. Among them was the Heiwa Sekimen case, a lawsuit filed by a group of plaintiffs against Heiwa Sekimen Co. Ltd. and several individual cases brought against Nihon Asbestos (Asbestos). All of these cases were settled by conciliation.

The Yokosuka Sumitomo (Heavy Industries Ltd.) asbestosis lawsuit was filed in 1988. This was the first action by shipyard workers in Japan. Through the legal fight, they sought to question the responsibility of the shipbuilding company, their employer, for the health hazards caused by the use of asbestos material in the shipyard in Yokosuka. The initiative was followed by a series of legal actions. The bereaved family of a dead thermal power plant worker filed a suit against the Shikoku Electric Power Co. Inc. Thereafter workers who had worked in the U.S. Naval Base in Yokosuka and bereaved families collectively sued the Japanese Government as an employer, and in Nagasaki workers and bereaved families mounted legal challenges against Mitsubishi Heavy Industries Ltd.

Recently, some lawsuits were filed in the shipbuilding field again, and a case about asbestos removal in a nursery school was brought into court. Such various types of asbestos litigation are increasing nationally, not to say rapidly.

PL-5-04 presented by Satomi Ushijima
Session: Compensation for Damages due to Asbestos



Nursery School Children's Asbestos Exposure Lawsuit

Satomi Ushijima
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Abstract

The damages suit presented here is an international breakthrough, whereby the court ruled against the defendant and ordered payment of damages even though the victims were yet to be diagnosed. In July 1999, renovation work started at a public nursery school run by Bunkyo City, Tokyo. During the work, the Bunkyo City Government failed to take any asbestos measures, such as the use of enclosures, and let a vast amount of sprayed asbestos scatter, thereby exposing the children attending the nursery school to asbestos. In January 2003, the children, who were exposed to asbestos but had yet to be diagnosed, along with their parents filed a suit against the Bunkyo City Government, seeking a formal apology as well as damages (economical damages and reparations).

The trial revealed that (i) during the work, which lasted approximately 20 days, the children were exposed to an amount of asbestos equivalent to an ordinary person's lifetime exposure and (ii) the work was done in such a sloppy way that it could be deemed either intentional or exhibited gross negligence (as evidenced by the fact that the name of the asbestos product was clearly written in the design documents, that use of asbestos was naturally presumable based on the year of construction, and that the City Government did not include the cost of suitable enclosures in the budget, despite repeated warnings by the parents and concerned parties). The court gave prominence to the fact that the children, while yet to be diagnosed, sustained actual damages as they would have to undergo checkups in future because of the increased lifetime risk, and recommended a settlement for complete resolution in favor of the plaintiffs and other interested parties.

The settlement, which was reached in April 2004, is summarized as follows: (i) the City Government should apologize to all the children and parents including the plaintiffs, (ii) the City Government and contractors should pay settlements to the children and parents who filed the suit (the total amount being 3 million yen including a solatium of 100 thousand yen per child), (iii) in principle, the City Government should also bear checkup expenses as a health care measure and medical expenses in the event of the onset of asbestos-caused disease, and (iv) the City Government should immediately remove asbestos from all public buildings and proactively educate private sector companies that demolish and/or refurbish buildings as to the existence of asbestos and relevant safety measures.

Today, based on the purport of the settlement, the children and parents who did not file the suit are negotiating with the City Government for the conclusion of an agreement or the formulation of a municipal ordinance, including the payment of a solatium to all affected children. This trial is expected to help develop the concept that in the demolition/refurbishment of buildings containing asbestos, activities that are currently reaching a peak in Japan, it is worth allocating more money to asbestos measures, such as the use of enclosures in terms of economy and public trust, and thereby prevent unnecessary exposure to asbestos in future.

PL-5-05 presented by Tim Hammond
Session: Compensation for Damages due to Asbestos

Asbestos Litigation in Australia: Past Trends and Future Directions

Tim Hammond

Partner, Slater & Gordon Lawyers, Perth, Western Australia, Australia

Abstract

Australia had the highest per capita use of asbestos in the world from the 1950s until the 1970s. We now have the highest per capita incidence of mesothelioma in the world. Mesothelioma is now contracted by more than 500 Australians per year. It is expected that up to 18,000 Australians are likely to die from the condition by 2020.

Inherent in this national epidemic is the tragic legacy of Wittenoom, in Western Australia. Crocidolite was first mined at Wittenoom in 1938. The mine was not decommissioned until 1967 and during this time period it is estimated 20,000 men, women and children lived in the town, worked at the mine and played in the raw asbestos tailings that lined the streets of the townsite. Wittenoom is clearly the greatest industrial disaster in Australia's short history.

Slater & Gordon have been acting for victims of asbestos related diseases for over 2 decades and was the first legal firm in Australia to obtain a damages verdict for asbestos related mesothelioma and asbestos induced lung cancer. Since this time, claims for compensation have been brought and won against defendants involved in the manufacture and supply of asbestos and employers who expose their workers to asbestos in the workplace.

The first landmark cases were fought in the 1980s and the fight for justice for victims of asbestos disease continues today. Traditionally, claims are brought in negligence against defendants; however as time progresses, different challenges in the litigation landscape present themselves.

We now act for victims who represent the 'fourth wave' of victims of asbestos disease, those who experience exposure to asbestos in sedentary occupations, in schools or at home. Combined with the forensic challenges these cases present is the growing uncertainty as to whether Government will introduce legislative reform which will curtail the ability of victims of asbestos disease to bring common law claims in negligence.

PL-5-06 presented by John Lawrence O'Meally
Session: Compensation for Damages due to Asbestos

Asbestos Litigation in New South Wales

John Lawrence O'Meally

Judge, Dust Disease Tribunal of New South Wales, Australia



Abstract

Asbestos was mined and used extensively throughout Australia. As a consequence Australia has the world's highest incidence of asbestos disease. In order to deal with increasing asbestos litigation in New South Wales (the most populous State in the Australian Federation) its Parliament created the Dust Diseases Tribunal in 1989, and invested it with exclusive jurisdiction to hear and determine claims for damages in respect of dust related conditions. It has a concurrent jurisdiction with the Supreme Court of New South Wales to determine the liability of insurers and claims for indemnity or contribution between tortfeasors. The New South Wales Parliament enacted substantive and procedural provisions to permit claims to be dealt with and finalized expeditiously. The practice and procedure of the Tribunal and the Statute under which it operates will be discussed.

PL-5-07 presented by Alexander Lacson
Session: Compensation for Damages due to Asbestos

Philippine Case: Asbestosis Victims Left by the US Navy at Subic Base

Alexander Lacson

Lawyer, Legal Counsel, Subic Asbestosis Victims Association (SAVA), People's Task Force For Bases Clean-Up, the Philippines

Abstract

The Philippines hosted US military bases for 92 years. Before they pulled out from our country, the US Navy and the US Air Force had one of their biggest, if not *the* biggest, military bases outside of mainland United States in the Philippines. As a result of their combat and non-combat operations, many Filipinos worked inside these bases, attending to various facilities and equipment.

Many of them claim to have been exposed to asbestos and are suffering from asbestosis. The US Navy and US Government have not compensated them for their asbestosis. The private companies – manufacturers and companies that supplied the products and materials containing asbestos to the US Navy – have paid very little to these Filipino asbestos victims, according to their US lawyer.

Today, 12 years after the Filipino asbestos victims filed their cases in US Courts against around 68 manufacturing companies, they want to know what happened to their cases. Why were they paid so little? What remedies do they have?

PL-5-08 presented by Linda Waldman
Session: Compensation for Damages due to Asbestos

Asbestos and Money: a Local Perspective from South African Asbestos Claimants

Linda Waldman

Institute of Development Studies, University of Sussex, the U.K



Abstract

This presentation examines how people in Griquatown, South Africa have received and interpreted asbestos compensation over the past 30 years. Many of the residents of this town worked at Cape plc asbestos mines in the Northern Cape and are thus afflicted with various asbestos-related diseases. Those people who worked at the mines have been able to claim compensation from the Medical Bureau of Occupational Disease within South Africa and, more recently, as claimants in the international class action against Cape plc. Those people who experienced only environmental exposure, but who still suffer from asbestos-related diseases have fewer options for compensation and have to rely on state pensions, which are difficult to secure. This presentation examines how these various payments for asbestos related diseases are conceptualised by residents of Griquatown. It focuses on cultural interpretations of asbestos related diseases, exploring the impact of these diseases through notions of family and belonging, and examines the socio-economic context into which these compensatory payments are made.

PL-5-09 presented by Richard Meeran
Session: Compensation for Damages due to Asbestos

Cape Plc: South African Mineworkers' Quest for Justice

Richard Meeran
Solicitor, Slaton & Gordon Lawyers, Australia



[paper submitted – author could not attend]

Abstract

In our precedent-based legal system, a ruling in one case can have a direct impact on the outcome of a case involving a totally different subject matter. This has been demonstrated in transnational litigation on asbestos and other issues. The case against Cape plc brought by South African asbestos victims took six years to work its way through the British legal system. This landmark case enabled injured South Africans to obtain compensation for both occupational as well as environmental asbestos exposure caused by a British corporation. The case and its repercussions will be examined.

PL-6-01 presented by Anders Englund

Session: Identification, Management and Removal of Existing Asbestos



Prevention of Asbestos Risks in the Construction Sector

Anders Englund

Department of Public Health and Clinical Medicine, Ume University, Sweden.

Abstract

Thirty years after cessation of asbestos use in Sweden some 100 male pleural mesotheliomas occur annually of which 20-25% are in construction workers. Excess incidence of pleural mesotheliomas is seen in several construction sectors indicating substantial exposure to asbestos in the past in connection with installation of products containing asbestos. After successive annual declines in incidence during the last decade rates have increased again in groups where exposure has occurred later, e.g. in the removal of earlier installed asbestos containing products. In Swedish males, asbestos-caused malignant disease annually kills 2-3 times as many as fatal work accidents and this applies also to the more accident prone construction sector.

Banning of asbestos containing construction materials took place only recently in some European Union countries although in others one to two decades earlier. More coordinated efforts have been made all over Europe to prevent upcoming asbestos exposure in the repair and demolition of existing buildings. Experiences of different administrative and technological approaches have recently been compiled and shared in a pan-European conference held in Dresden, Germany in 2003. Additional legal improvements are in preparation on the EU-level.

Asian countries are today the major asbestos importers and users; the majority of the asbestos imported by countries that still use asbestos is for use in construction materials. Tight safety procedures cannot be applied so rigorously in construction sites as in established workplaces such as factories. Accordingly, even in the absence of domestic data on asbestos caused ill health among construction workers in these countries, there is no reason to believe that their risk is less than that found in Swedish surveillance programs. There are accordingly strong reasons for Asian countries to follow the recommendations of the Dresden declaration even with regard to a cessation of use of asbestos.

PL-6-02

Session: Identification, Management and Removal of Existing Asbestos

Defining a Minimum Global Standard for the Training and Competency of Persons Involved in Management and Work with Asbestos

Max Lopacki

National Asbestos Training & Accreditation Scheme (NATAS), the U.K

[Paper not submitted – author could not attend]

Abstract

There are many differing interpretations and standards of training throughout the world for persons, who manage, work with or abate asbestos that has been installed in buildings, premises, ships etc. Certain countries are well advanced in defining, legislating and policing minimum standards, while in other countries asbestos worker protection legislation is non-existent and training for such work is not even a concept understood. Even where training requirements are defined and enforced there is still considerable disparity between active countries in respect of the definition of "training", who requires training and what the training should consist of and how often training should be undertaken. This disparity was highlighted recently when an EU funded research project, undertaken by the HSL, part of the UK Health & Safety Executive (HSE) aimed to identify training activities and standardize asbestos worker training throughout participating EU member states. The disparity increases further when considering the US, Asia, Australia and many other regions where asbestos abatement markets are in varying stages of development ranging from newly emerging to fully mature. This paper aims to review the varying standards around the world (where known to the author) and asks the question "Is it possible to define a Minimum Global Standard for the Training and Competency of Persons Involved in Management and Work with Asbestos?"

PL-6-03 presented by Heinz Kropiunik

Session: Identification, Management and Removal of Existing Asbestos

Asbestos Management Plan for the Vienna International Center

Heinz Kropiunik

aetas Ziviltechniker GmbH, Austria



Abstract

The Vienna International Centre (VIC) is together with New York and Geneva one of three worldwide headquarters of the United Nations. It consists of 7 buildings with a gross floor area of approximately 340,000 m² and there are about 4,000 persons working within this complex. The UN rented the VIC for 99 years from the Republic of Austria, the owner of the buildings.

During the time of erection of the VIC, between 1973 and 1979, asbestos was widely used in construction all over the world. According to Austrian statistical figures in 1971 and 1976 the quantity of manufactured raw asbestos reached an absolute annual peak of approximately 35,000 tons. Nearly 90 % of this quantity went directly or indirectly into the construction sector. In the VIC asbestos was used for fire insulation as a sprayed-on material, panels and ropes.

In 1997 an overview study regarding the asbestos related situation in the VIC was carried out, including risk assessment. Though the actual asbestos risk to the staff was not found to be alarming, the Austrian Government decided to set up a management plan for total asbestos removal in the VIC as, due to the age of the buildings, major renovations could be expected anyway in the near future.

The first draft of the asbestos management plan for the VIC was finished in 2000. The outcome was a comprehensive asbestos register, an in-depth feasibility study of logistical variants for the entire asbestos removal project during which the buildings were to be kept in operation and, finally, a pilot removal project on one of the regular floors.

The detailed exercise to complete the asbestos management plan started in 2001. During the tendering process for the first phase of the asbestos removal work some removal exercises had to be undertaken due to certain facility management needs. The start for the first phase of the main project is planned for the end of 2004. The whole project should be finished by the end of 2009.

PL-6-04 presented by Susana Muhlmann

Session: Identification, Management and Removal of Existing Asbestos

A Case Study: Former Caseros Prison – First Asbestos Removal Project in Argentina

Susana Muhlmann

Architect, Asbestos Removal Procedures and Legal Aspects Technical Advisor, Government of Buenos Aires, Argentina



Abstract

In 1999, the Government of Buenos Aires City decided to decommission and demolish Caseros Prison, a 21 story-high concrete construction located in the City, inside a residential area with some small factories and only one block away from the National Paediatrics Hospital.

Empty since 2000, the building was programmed to be demolished one year later, however, it is still standing.

A division of the Army, a Battalion of Engineers with expertise on explosives, was commissioned to blow-up the jail in 2001, but just before the demolition attempt, asbestos was discovered in the cellars by Inspectors from the Ministry of Health together with a German expert and, because of that, the City authorities stopped the planned, massive implosion.

Subsequently, in accordance with the City Government's environmental policy, it was decided that, despite the lack of local standards, the asbestos would be removed using safe procedures.

It was necessary to: work on a basic legal framework and new documentation; explain again and again the basis of the asbestos procedures to all the people involved (from members of the Government to neighbours); give training to a branch of the Army specializing in biological, chemical, and nuclear emergencies; call on a diversity of specialists; estimate budgets on tasks never done before.

It took two more years and extensive teamwork among civilians and the military, public and private organisations, and local and international advisors, to bring this project to fruition.

The aim of this presentation is, then, to show how the Government of Buenos Aires City, together with all the institutions and individuals involved and with the invaluable assistance of international experts, adjusting step by step foreign standards to the Argentinean reality, was able to develop a large-scale asbestos removal project, fulfilling all required security measurements and procedures, and establishing the legal and technical background to develop local regulations.

PL-6-05 presented by Andy White

Session: Identification, Management and Removal of Existing Asbestos

Asbestos: New Strategies & Joint Working; the Experience of Local Government in Scotland

Councillor Andy White¹ and Tommy Gorman²

¹*Leader, West Dunbartonshire Council*

²*WRRU, West Dunbartonshire Council*



Abstract

This paper will present two main themes:

1. Discuss the impact of asbestos-related illness on a former shipyard community in Scotland.
2. Examine the role of local government and consider efforts made to address asbestos problems.

The objective of this paper is to present the experiences of the Clydebank community and the work of COSLA's asbestos working group, and to promote a debate which provides questions faced on an international scale with answers which have been worked out in a local context.

HSE Statistics

The most recently available national statistics published by the Health & Safety Executive (HSE) on mesothelioma mortality in Great Britain are analysed by geographical area. The report lists West Dunbartonshire as having the highest percentage of deaths from mesothelioma in Great Britain with an SMR in excess of six times higher than the average. The highest mesothelioma excesses in males tend to be those located around shipyards, ports and dockyards.

Clydebank

For almost a century the town of Clydebank was a hub of industry and famous for its shipyards and engineering works. A product of this industrial heritage is the unwanted legacy of asbestos. This paper will outline the magnitude of the asbestos problem faced by the community in Clydebank, West Dunbartonshire. It will discuss practical strategies developed locally to address these issues. Discussion will centre on whether, or not, similar strategies can be applied in other parts of the UK, and indeed, internationally.

Convention of Scottish Local Authorities

We will also examine the role of local government and consider efforts made to address asbestos problems. West Dunbartonshire Council has raised the asbestos issue with all other Local Authorities in Scotland through the Convention of Scottish Local Authorities (COSLA). The convention promotes Scottish local government's collective interests. The COSLA report provides a summary of the key issues from the work of the Asbestos Working Group, together with their key recommendations. Copies of the full report can be accessed online at www.cosla.gov.uk in the section on Executive Groups.

PL-6-06 presented by Andy Oberta

Session: Identification, Management and Removal of Existing Asbestos

A New Standard for Repair and Maintenance of Installed Asbestos-Cement Materials

Andrew F. Oberta

Environmental Consultant, Environmental Consultancy, the U.S.A



Abstract

The ASTM Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products has been developed by ASTM International¹ and assigned the designation E2394. The standard provides the underlying rationale and detailed procedures for working with asbestos-cement products – roofing, siding, ducts, pipes and other construction materials – that have already been installed in and between buildings. It covers operations that can produce dust and airborne asbestos fibers – drilling, cutting, breaking, filing, etc. – during routine maintenance, repairs and small-scale renovation. Control of dust and fiber release using wet methods – soapy water, shaving cream and similar substances – is stressed. Four appendices cover underground pipes, buried ducts, drilling holes and removing panels, and additional appendices will be prepared to cover other operations and materials. Installation of new asbestos-cement products is not encouraged by the standard. Large-scale abatement is not the intended purpose, although some of the procedures may apply to such operations.

The procedures are intended for use in developing as well as industrialized countries; therefore, the use of hand tools and easily-obtained equipment and supplies is emphasized. The use of power tools is discouraged to minimize the possibility of creating airborne fiber levels that would require wearing respiratory protection.

E2394 is intended for use by supervisors and managers responsible for construction and maintenance as well as by government agencies and NGOs responsible for worker and community health programs. The standard offers useful guidance for countries in the process of developing their asbestos laws and regulations. ASTM International intends to provide training on the use of this standard in countries where it will be used through arrangements with standards organizations in those countries.

(Mr. Oberta is Chairman of the Task Group on Asbestos Management of ASTM International.)

¹ ASTM International (www.astm.org) is the world's largest producer of voluntary consensus standards. As Chairman of the Task Group on Asbestos Management of ASTM International, Mr. Oberta is also responsible for E1368 Standard Practice for Visual Inspection of Asbestos Abatement Projects and E2356 Standard Practice for Comprehensive Building Asbestos Surveys.

PL-6-07 presented by Mardel Knight

Session: Identification, Management and Removal of Existing Asbestos

Asbestos Control Programs in Schools, Industry and the Environment in Maryland, USA

Mardel Knight

Maryland Department of the Environment, the U.S.A.

Abstract

The State of Maryland in the United States has a long history of asbestos use. Asbestos was mined in Maryland until 40 years ago, mine tailings were used as road cover. More intense exposure was provided by the use of thousands of tons of asbestos in building materials and in its use in steel mills and shipyards located in Baltimore, Maryland. Thousands of Marylanders have died and become diseased from asbestos exposure.

The State of Maryland has regulated asbestos for three decades, but instituted a licensing, training, inspection and waste control regulations which were very stringent in the mid 1980s. The MDE (MD Dept. Env) program also oversees the Asbestos Hazard Emergency Response Act which strictly identifies and regulates all asbestos building products in schools. Now this program has been expanded to all buildings.

This presentation will detail the administrative controls the state places on all those who work with, identify, remove or own asbestos containing materials.

PL-6-08 presented by Shigeharu Nakachi

Session: Identification, Management and Removal of Existing Asbestos



Status of the Use and Environmental Release of Asbestos Analyzed by Using PRTR Data in Japan

Shigeharu Nakachi

Environmental Monitoring Laboratory (EML), Toxic Watch Network (T-Watch), Japan.

Abstract

The Pollutant Release and Transfer Register (PRTR) system was implemented in Japan in April 2001. Since then, the designated industrial facilities have been required to report amounts of hazardous chemicals released into the environment or transferred outside the facilities under the system. Also, the regulatory authorities have estimated the emissions from undesignated facilities, households and mobile sources. Every year the authorities publish these reported or estimated values as PRTR data. So far the data for 2001 and 2002 are available. This report describes the use of asbestos and the associated environmental pollution in Japan based on these published PRTR data.

Asbestos will be banned essentially from use in Japan in October 2004. Even now when the regulatory framework has not yet been implemented, however, the industries are voluntarily refraining themselves from using asbestos. The consumption, which was more than 200,000 tons 20 years ago, fell below 100,000 tons several years ago. Subsequently, the figure has further dropped to a level of several tens of thousand tons.

PRTR data indicate that asbestos transferred as waste from 10 industrial sectors totaled approximately 3,167 tons for fiscal year 2002, which indicates that the material is extensively used. Approximately three tons of asbestos are estimated to be emitted from the railroad industry, where the material is used mainly for brake pads. This fact strongly suggests that the material is used for the same application in the automobile industry. The government, however, does not publish any estimate of the emission of asbestos in the automobile industry under the pretence that no reliable data are available. The actual emission of asbestos into the environment, therefore, may be greater than the official figure published by the government.

PL-7-01 presented by Kazuko Ouchi

Session: A world Free from Asbestos Risks: Future Strategies



From the "Controlled-Use" of Asbestos to the Ban of Main Asbestos Products - The Process in JAPAN: June 2002 - Oct. 2004

Kazuko Ouchi

Citizens Group "Let's Think About Asbestos!", Japan

Abstract

During the past decades, Japan has been a leading consumer of asbestos, but very few people were aware of this fact. This misconception planted in society has concealed the magnitude of this issue, while numerous hidden victims have been produced. An examination of the steps leading to the current asbestos ban in Japan is needed under these circumstances.

On 28 June 2002, the Minister of Health, Labor and Welfare, Dr. Chikara Sakaguchi, declared the new policy that all asbestos-containing products should be prohibited except products considered to be essential for industrial and public safety.

In December 2002, the government formed "the Technical Committee on Substitution for Asbestos", a closed committee, to review the possibility of asbestos-containing product replacement at the category level. The report of the committee released in April 2003 indicated preference for a partial ban instead of total ban.

Notification of the ban was sent to the WTO in May 2003, but no official comments from other member countries of the WTO were submitted.

Just before this procedure, the committee had heard submissions from Canada and other interested parties behind closed doors. Public comments were invited, but the consultation document provided for this purpose was only a few lines of outline.

On 16 Oct. 2003, the Enforcement Order of the Industrial Safety and Health Law was amended. Manufacture, import, use and transfer of ten kinds of products, including tiles and friction materials, containing more than 1% asbestos by weight were prohibited.

Although the amended Order was enforced on 1 Oct. 2004, import or export of chrysotile fiber is legal after this date. Any asbestos-containing products except for those in the ten prohibited categories, as well as products in those categories containing 1% or less asbestos, can be produced or used in Japan. Besides, all asbestos-containing products which were produced or imported before 1 Oct. 2004 were not to be subject to the amended Order, so they could be sold legally after the enforcement date

PL-7-02 presented by Laurent Vogel
Session: A world Free from Asbestos Risks: Future Strategies



The situation in the European Union after the Total Ban on Asbestos

Laurent Vogel
European Trades Union Confederation (ETUC), Belgium.

Abstract

The trade unions' fight against asbestos has not ended now that the European Union has decided to prohibit any new use of asbestos. Asbestos-related repercussions on health will continue to pose a major problem in years to come.

The revision of the Community Directive concerning the use of asbestos has created a better legal framework in the EU countries. The Directive of 27 March 2003 demonstrates a certain amount of progress. In practice, it forbids manufacture of materials or products containing asbestos which are intended for export. Other positive elements are the decrease in the exposure limit to 0.1 fibres/cm³ and the extension of the Directive's scope.

However, the Directive does have certain deficiencies, notably:

- the revised Directive does not cover self-employed workers.

it should be ensured that all demolition work on buildings or installations containing asbestos and all asbestos clean-ups are performed by companies approved on the basis of adequate criteria.

But, above all, it is effective compliance with the adopted regulations which is problematic.

Among other crucial issues which have still to be addressed, the following will be discussed:

- the creation of public registers of buildings containing asbestos;
- the improvement of the recognition of asbestos-related diseases;
- the monitoring of European enterprises' activities in developing countries and the prohibition of exports of waste containing asbestos to developing countries;
- the surveillance of the PPE market;

The asbestos tragedy is unfortunately typical insofar as there are numerous other chemical substances which kill a large number of people every year. The current debate surrounding the Commission's REACH proposals on European policy relating to chemical substances shows that the same mechanisms which contributed to the asbestos disaster are continuing to pose serious threats to workers' health, the population and the environment.

PL-7-03 presented by Arthur Frank

Session: A world Free from Asbestos Risks: Future Strategies

The Study of Asbestos Use in China

Arthur L. Frank

Public Health, Drexel University School of Public Health, the U.S.A.



Abstract

China continues to be a major producer and user of asbestos. In addition to mining activities there is continued manufacture of a wide variety of products, many of which are then distributed worldwide. There are opportunities for major research studies, such as studying the effects of asbestos among populations with significant numbers of women. Most asbestos used is chrysotile, also allowing for addressing issues of fiber type. There are also some significant challenges to undertaking research given the nature of the Chinese medical system and health care having been concentrated at worksites for potentially affected workers. Nevertheless, data has been accumulating regarding issues of health outcome and these will be presented. Collaborative efforts between U.S. and Chinese investigators have made this possible, and how such collaborative efforts can be undertaken will be reviewed. The role for educating public health agencies and workers will be discussed.

PL-7-04 presented by Le Van Trinh

Session: A world Free from Asbestos Risks: Future Strategies

Possibility of Using Substitute Materials for Asbestos and Non-Asbestos Fibro Cement Roofing Tiles to Reduce Environmental Pollution and Increase Workers' Health Protection in Vietnam

Dang Dinh Tri, Nguy Ngoc Toan and Nguyen The Cong

Vietnam National Institute of Labour Protection

Abstract

The paper describes the process of discovering and researching asbestos substitute materials and the development of technology for manufacturing non-asbestos fibro cement roofing tiles which has taken place in the past 10 years in Vietnam. Work was undertaken using plant fibers which are available in Vietnam, such as jute, coconut and bagasse fibers etc., and using combined materials of cement– polymer – inorganic / organic fibers to produce lighter components. The development of technology to manufacture PVA-cement roofing tiles with optimal percentages of materials involved using wet-forming technology imported from Japan and China.

The paper makes some recommendations for the production of PVA-cement roofing tiles to eventually replace asbestos-cement roofing tiles in Vietnam.

PL-7-05 presented by Ken Takahashi

Session: A world Free from Asbestos Risks: Future Strategies

The Asian Initiative to Stop the Spread of Asbestos-related Diseases in the Region, A Proposal



Ken Takahashi

Professor, Department of Environmental Epidemiology, University of Occupational and Environmental Health, Japan

Abstract

Asia is often noted for its rapidly growing economy and its large share of the world's population. The region is also diverse, in terms of development, socio-demographic, historical, political, and cultural dimensions. Asbestos-related diseases are inter-related with all these factors, and further complicated by globalization. The objective of this presentation is to build on the fruits of the Asbestos Symposium for the Asian Countries (represented by eleven countries) held in UOEH in 2002, and formulate an Asian initiative.

In the region, the trend in consumption of asbestos shows a striking contrast: the industrialized countries show a steady decrease, and developing countries show a definite increase. While most countries have enforced bans on the use of crocidolite, amosite is not banned in some countries. Regarding chrysotile, Singapore and recently Japan, are the only two countries which have banned its use practically. The banning of asbestos is not on the agenda, at least officially, in other countries. China continues to be one of the world's largest consumers and producers of chrysotile asbestos. Regarding asbestos-related diseases, asbestosis is a recognized occupational disease in most countries, but under-diagnosis and under-reporting is apparent in developing countries. Mesothelioma is far more underdiagnosed (as a disease and more so as an occupational disease) and incidence/mortality data are available for only a few countries. For asbestos-related lung cancer, the situation is abysmal.

Asia is likely to be on the verge of an epidemic of asbestos-related diseases. However, asbestos-exporting corporations are keen to take advantage of the demand created by rapid economic development of the region. Hence a careful, justifiable and concerted effort is needed to stop the spread of asbestos-related diseases in the region. A preliminary action plan will be proposed to serve as basis for a progressive discussion with an aim to gain wide acceptance.

PL-7-06 presented by Sanjiv Pandita

Session: A world Free from Asbestos Risks: Future Strategies

Banning Asbestos in Asia, Campaigns and Strategies by the Asian Network for the Rights of Occupational Accident Victims. (ANROAV)



Sanjiv Pandita

Occupational Safety and Health Officer of the Asia Monitor Resource Center (AMRC) and Asian Network for the Rights of Occupational Accident Victims (ANROAV), Hong Kong

Abstract

Asbestos has been undoubtedly recognized as a potential killer and major developed countries have either banned it or restricted its usage. This in turn has led to promotion of this deadly substance in the developing countries by most of the asbestos manufacturers. Asia has emerged as a huge market for asbestos. China and India are the two biggest consumers of asbestos in Asia. Saudi Arabia is the only country in Asia to impose a complete ban on asbestos. On the contrary, the asbestos manufacturers lobby has been promoting chrysotile (white asbestos) as safe under controlled conditions. It is highly ambitious to think that controlled conditions can ever be achieved in Asian workplaces where the race to the bottom (cheap production) has already seen minimal expenditure on safety of the workers. No one knows how many workers are suffering from asbestos-related disease in Asia due to almost non-existent reporting mechanisms for occupational disease. The Asian Network for the Rights of Occupational Accident Victims (ANROAV) is a unique coalition of occupational accident and disease victims, labour groups, trade unions, labour NGOs and labour activists working towards OSH rights in Asia. It has members from more than 14 Asian countries. The paper provides an overview of the gravity of the asbestos problem in Asia. It also outlines the strong opposition by the asbestos lobby in different Asian countries against banning asbestos and even support from the mainstream media in many countries for its usage. The paper analyses the hindrances posed by many countries, in terms of differential lower tariffs on asbestos imports compared to the safer alternatives. The paper examines the campaign that ANROAV has launched towards the asbestos free workplace in Asia. The paper also provides insights about the possible strategies at the Asia level targeted towards the banning of asbestos in Asia and compensating affected workers. This paper is based on the rich experiences of the ANROAV members and on the case studies of some victims across Asia.

PL-7-07 presented by Fiona Murie

Session: A world Free from Asbestos Risks: Future Strategies

The Trade Union Campaign for a World-Wide Ban

Fiona Murie

International Federation of Building and Wood Workers (IFBWW), Switzerland

Abstract

The trade unions attending the Global Asbestos Congress in Osasco, Brazil in September 2000 proposed clear campaign action points, summarized below. The ICFTU, meanwhile, has committed to strengthen the global campaign to ban asbestos and have organised a Round Table discussion on asbestos between the ILO and WHO and the Global Unions, scheduled for September 2004. This session will examine has been achieved in these four years since Osasco, and will highlight initiatives to intensify the trade union campaigning work.

Asbestos ban: Trade unions should lobby their national governments to introduce a ban on asbestos, as part of an international initiative to ban asbestos throughout the world.

Protection of workers: Trade unions should lobby their governments to apply ILO Convention 162 as a minimum standard to protect workers who may be exposed to asbestos through their work.

Awareness raising: Trade unions should develop a broad-based international campaign to educate workers and the public about the risks of exposure to asbestos and the measures to be taken to prevent ill-health.

Alternatives: Trade unions should seek the replacement of asbestos with alternative substances that are less harmful to human health and the environment.

Information exchange: Trade unions in countries that manufacture and use asbestos substitutes should disseminate information on these.

Just Transition: Where workers may be displaced because of the introduction of an asbestos ban, trade unions should lobby to protect the income, employment and welfare of those affected and their communities.

Legal action: Trade unions should seek through their legal systems to bring to justice those employers whose negligence has caused asbestos diseases.

Compensation: Trade unions should seek appropriate and prompt compensation for workers who suffer from asbestos related diseases.

Treatment: Trade unions should campaign to ensure that the victims of asbestos related disease have access to medical treatment, support services and information.

PL-7-08 presented by Laurie Kazan-Allen
Session: A world Free from Asbestos Risks: Future Strategies

Towards An Asbestos Free World!

Laurie Kazan-Allen

International Ban Asbestos Secretariat (IBAS), the U.K.



Abstract

Although exposure to asbestos has been linked with a range of debilitating and fatal diseases, vested interests in Canada, Russia and Zimbabwe continue to maintain that asbestos can be used “safely under controlled conditions.” In 2003, Canada orchestrated opposition to a United Nations proposal to include chrysotile (white asbestos) on a list of harmful chemicals subject to international trade restrictions. On June 6, 2004, the Canadian Government reaffirmed its continuing opposition and pledged to block the listing of chrysotile at the September, 2004 meeting of the Intergovernmental Negotiating Committee for an Internationally Legally Binding Instrument for the Application of the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Despite the long-standing collusion of global asbestos producers, asbestos victims’ groups and public health campaigners have succeeded in over-turning years of industry dominance with the result that more than forty countries have banned or seriously restricted the use of asbestos. Unfortunately, as consumption in some countries has ended, in others it has increased. To prevent the transfer of “the killer dust” from the developed to the developing world, a sustained campaign to raise awareness of asbestos hazards is needed; working with international bodies such as the World Health Organization, the International Labor Organization, the United Nations, the European Union, the International Confederation of Free Trade Unions and the World Bank will maximize global efforts to bring to an end 100 years of asbestos deaths.

WS-A-01

Workshop: Asian Network: Scope and Action

OHSEI, the Asian Workers' Occupational Health, Safety and Environment Institute, and Asbestos

Jesper Christensen

Asian Workers Occupational Health, Safety and Environment Institute (OHSEI), Thailand [not-attended, paper submission]

[Paper submitted – author could not attend]

Abstract

OHSEI, the Asian Workers' Occupational Health, Safety and Environment Institute, was established in February 2000 and is based in Bangkok.

OHSEI is the occupational health, safety and environment agency for the International Unions in Asia. Its member organisations are:

- ICFTU-APRO
- Education International (EI)
- International Federation of Building and Woodworkers (IFBWW)
- International Metalworkers Federation (IMF)
- International Textile, Garment and Leatherworkers Federation (ITGLWF)
- Public Services International (PSI)
- Union Network International (UNI)

Mission:

- To improve the working conditions of workers throughout Asia.
- To promote environment-friendly and sustainable industry.

Core-activities:

- OSH-training and research throughout Asia.
- An annual Theme Conference for trade unions, academics and NGOs in the region.
- Dissemination of information via Web-site (www.Ohseinstitute.org) and newsletters
- Developing and maintaining active networks in support of OSHE-activities.
- Fund Raising

OHSEI and Asbestos:

As the International Unions agency on Occupational Safety, Health and Environment, OHSEI has a strong role to play in guiding the Trade Unions on how to deal with asbestos

For OHSEI there are two issues that need to be addressed, i.e. how can the unions mobilize a ban on asbestos and how can the unions ensure that the workers have been trained to work with asbestos safely.

OHSEI will seek to:

Screen the various unions in Asia's attempt to ban asbestos and display the outcome on OHSEI's

website.

- Produce a catalogue on campaigns that have been successful.
- Prepare information material on safe work techniques dealing with asbestos.
- Prepare training programmes and manuals.
- Prepare guidelines for unions on how to carry out campaigns with the aim of informing the workers on risks and hazards while working with asbestos.

WS-A-02 presented by Madhukar Kashinath Pandhe
Workshop: Asian Network: Scope and Action



Role of Trade Unions in the Campaign for Prohibition of Asbestos

Madhukar Kashinath Pandhe
Centre for Indian Trade Unions, India

Abstract:

Despite adoption of the ILO convention No. 162 the progress in the direction of banning and marketing of asbestos and asbestos containing material has been slow in the world, particularly in developing countries.

Global asbestos stakeholders distribute propaganda claiming that asbestos can be used safely under “controlled conditions;” unfortunately, the confusion and misinformation spread by asbestos industry spokespeople has persuaded policy makers and consumers in some developing countries to increase their use of asbestos. By lowering import duties on asbestos, the Indian Government has favored an increase in national asbestos consumption. The role of trade unions in the campaign for a global ban is examined with a particular focus on action taken and demands made by Indian trade unions.

WS-A-03 presented by Chan Kan Hong
Workshop: Asian Network: Scope and Action



Asbestos Issues in Hong Kong

Chan Kan Hong

Association for the Rights of Industrial Accident Victims (ARIAV), Hong Kong

Abstract

Hong Kong has had strict control on the use and handling of asbestos from the 1980s and the Air Pollution Control Ordinance bans the import and sale of the more dangerous types of asbestos, from May 1996; it also provides for the control of activities that might lead to asbestos dust emissions.

The compensation of pneumoconiosis (silicosis and asbestos included) scheme started in 1981. Workers diagnosed with silicosis or asbestosis, could certainly get compensation. Because of strict controls and the compensation scheme, there is no reason to have under-reporting of asbestos cases. The following is the number of new case both of silicosis and asbestosis:

Number of Assessed new case from 1994 to 2001 in Hong Kong
(According from Pneumoconiosis Compensation Fund Board)

Year	No. of Silicosis	No. of Asbestosis
1994	314	7
1995	191	9
1996	110	9
1997	118	7
1998	104	5
1999	137	15
2000	105	11
2001	122	9

Asbestos: Current Situation in Taiwan

Ho Kuang-Wan

Taiwan Association for Victims of Occupational Injuries (TAVOI), Taiwan

Abstract

In the 1980s, because of the asbestos industry, a lot of American workers got abdominal cavity cancer, pulmonary asbestosis and lung cancer. The American government then imposed stricter exposure standards for asbestos, which resulted in asbestos manufacturers searching for factories in developing countries. At that time Taiwan had no asbestos production controls, so many asbestos factories migrated from America. This not only caused serious pollution in the factories and the environment, but also damaged the health of both workers and the public. In the 1990s, Taiwan revised the conditions for asbestos usage and management. This led to a majority of asbestos factories moving to other places, such as mainland China, Vietnam, Thailand. However, asbestos still continued to be used in many factories illegally. In addition, there is no restriction on using asbestos as an ingredient of building materials. Many workers don't know how dangerous things are that they touch every day.

Asbestos has already been confirmed to be the definitive pathogenic factor in pulmonary asbestosis and it's widely used in Taiwan; however, there are just a few cases recognized in Taiwan. Even an occupational disease doctor wondered why he hasn't diagnosed any asbestosis cases for over twenty years. What is the reason? We would like to discuss the following points:

1. Current asbestos industry condition and worker's situation in Taiwan.
2. Current governments' policy and regulations on asbestos.
3. Current medical service system of occupational disease.

WS-B-01 presented by Toshio Hirano
Workshop: Asbestos and Construction



Asbestos Related Findings among Construction Workers and Educational Effects for Prevention

Toshio Hirano¹, Yuji Natori¹, Mari Shimazu¹ and Naoki Toyama²

¹ *Kameido-Himawari Clinic, Tokyo, Japan*

² *Tokyo Occupational Safety and Health Center, Japan*

Abstract

A comprehensive occupational safety and health program has been launched with the objectives of preventing occupational accidents and diseases, early detection of relevant diseases, assistance in compensation claims by victims, and training in preventive measures in particular for self-employed workers and small businesses. The trade union, the Construction National Health Insurance Association that is affiliated to the union, the Himawari Clinic and the Tokyo Occupational Safety and Health Center started a joint program in 1996. The Tokyo Joint Association of General Federation of Construction Workers' Union organizes 150,000 construction workers, mainly self-employed workers and small businesses working in small construction sites for wooden buildings or in large construction sites as sub-contractors. Initial activities included joint surveys of construction sites and health surveillance of construction workers. For example, to detect occupational respiratory diseases, we have annually checked about 6,000 chest X-ray films of construction workers against the Japanese Standard Pneumoconiosis Films supplied by the Ministry of Health, Labour and Welfare. As a result, we found that workers with 0/1 small opacities and pleural plaques accounted for 13%, and those with 1/0 small opacities accounted for 0.6%.

In 2000, we started educational programs about the prevention of occupational respiratory diseases. For members with abnormal chest X-ray findings, we conducted workshops about the prevention of occupational respiratory diseases and the improvement of working conditions. The workshops were held 20 times per year from 2002. We used newly designed teaching materials comprising photographs and video clips of various jobs as well as instructions about the measurement of total dust and asbestos concentrations. The workshops have proven effective for construction workers in enhancing the recognition of risk due to dust and asbestos and changing work practices of dusty jobs. In a prominent example, workers adopted a local exhaust system and personal protection in cutting a dry wall, and a drastic reduction in dust concentrations during work resulted.

Check of Medical Receipts for Detection of Pneumoconiosis and Asbestos-Related Diseases at the Tokyo Construction Health Insurance Society

Kyoichi Yamada

Tokyo Construction Health Insurance Society, Tokyo, Japan

Abstract

There are four types of medical insurance in Japan: "Employees' health insurance" for employees of business organizations (68.67 million subscribers); "Mutual aid associations" for public employees (10.01 million subscribers); "Municipalities-operated national health insurance" for people not covered by other schemes, including self-employed workers (43.37 million are insured); "National health insurance society" operated by fellow industries (4.25 million are insured).

The Tokyo Construction National Health Insurance Society (TOKEN-KOKUHO) was established by seven construction labor unions, which organize employees of construction industries, in July 1970. There are 15,646 union members in the Society and, including members' dependents, 34,740 persons are insured as of 31 May 2004.

TOKEN-KOKUHO has checked receipts of medical remuneration since 1994 in order to identify our colleagues who have been suffering from pneumoconiosis and help them obtain compensation for absence from work by way of workers' accident compensation insurance, because anybody who had been engaged in construction work could have used asbestos-containing materials and been exposed to asbestos dust, and as a result fallen victim to pneumoconiosis. We also addressed ourselves to this action as enlightenment about asbestos hazards.

The TOKEN-KOKUHO has checked the receipts of medical remuneration since January 1994. Once a month, our staff extract the receipts of medical remuneration of our colleagues who have at least one of eight types of disease (1. lung cancer, including suspected, 2. silicosis, 3. pneumoconiosis, 4. lung fibrosis, 5. mesothelioma, 6. lung phthisis, 7. asbestosis, 8. pleural plaques) from a total of 31,000 receipts, and send them to the medical institution designated by the TOKEN-KOKUHO to be assessed by physicians.

The physicians rank the extracted receipts Special A, A, B, C in order of causation between diseases and jobs. Workers who are suffering from diseases which are considered to have the clearest relation to their jobs are ranked Special A. The TOKEN-KOKUHO notifies the Special A-ranked workers and their labor unions that they are allocated so. It is necessary to investigate their job history and whether they have subscribed to workers accident compensation insurance. Since 1990, public health nurses belonging to the designated medical institution and staff of labor unions, to which the Special A-ranked workers belonged, have visited them to explain pneumoconiosis using booklets, and inquired about their job history and whether they had subscribed to industrial accident compensation insurance. They also recommend that the Special A- ranked workers take medical

advice from Hirano Himawari Clinic, the designated medical institution.

We have thus far visited over 50 Special A-ranked patients since 2000, and achieved recognition for 9 of them as having occupational diseases (compensation benefits for absence from work and/or bereaved family compensation).

We have accomplished certain results. However, several colleagues could not apply for the insurance program because they did not take out workers accident compensation insurance. We need to strongly recommend to our colleagues that they take out workers accident compensation insurance, in cooperation with labor unions which comprise the TOKEN-KOKUHO.

WS-B-03 presented by Morimitsu Watanabe
Workshop: Asbestos and Construction



Actions on Pneumoconiosis and Asbestos Measures taken by the Tokyo Federation of the National Federation of Construction Workers' Unions

Morimitsu Watanabe and Akira Horii

*The Tokyo Federation of the National Federation of Construction Workers' Unions
(Zenkensoren-Tokyo-Toren), Japan*

Abstract

The Tokyo Federation of the National Federation of Construction Workers' Unions ("Zenkensoren-Tokyo-Toren") is a federation of craft unions for construction workers such as carpenters/plasterers and independent master carpenters in the construction/housing industries, and has about 143,000 members from 15 Tokyo-based unions at present.

As part of its actions to demand the recognition of pneumoconiosis and asbestos-related diseases as work-related, Zenkensoren-Tokyo-Toren tries to identify union members who are likely to suffer from occupational diseases through such actions as having X-rays taken during checkups reinterpreted by medical specialists and verification of receipts submitted to the National Health Insurance Association for Construction Workers, established by the Federation.

As well as demanding ex post facto compensation and relief measures by the recognition of pneumoconiosis and asbestos-related diseases as work-related, Tokyo-Toren considers it crucial to take direct actions to improve construction sites, which are the source of dust particles and asbestos. As hardly any measures are being taken against dust particles and asbestos on construction sites (including demolition/refurbishment sites) in Japan in practice, Zenkensoren-Toren presses major general contractors and housing manufacturers to take remedial measures, presenting them with real-world construction site situations.

Meanwhile, it launched "Union Members' Participatory Campaign for Construction Site Improvement", which is designed to help construction workers seek improvements of their work sites through provision of various tools such as the special "Site Improvement Kits", and has encouraged many workers to participate in it. As well as improving safety on site, Tokyo-Toren aims to better sanitary/environmental measures and ultimately enhance productivity by broadening this campaign.

Efforts of Tokyo Doken to Combat Asbestos Use and to Help Victims of Asbestos-Related Diseases and Pneumoconiosis

Kazuya Miyake

Tokyo Construction Workers' General Union (Tokyo Doken), Japan

Abstract

Introduction

Since Jan. 2002, the Tokyo Construction Workers' General Union (Tokyo Doken) has won certifications under the Workers' Accident Compensation Insurance Law for 32 workers and now is preparing applications for 71 cases. Among the 32 victims entitled under the law are three workers with malignant mesothelioma, six workers with lung cancer and five workers with asbestosis. The asbestos-related victims account for as many as 44% (14 workers). The prevalence of asbestos-related diseases is increasing.

1. Four approaches for identifying asbestos-related diseases and pneumoconiosis among members

- (1) Review of the receipts submitted to the national health insurance society
- (2) Rereading of chest X-ray films
- (3) Screening for pneumoconiosis
- (4) Initiative of Mutual Aid Association

1) Review of the receipts submitted to the national health insurance society

As for the receipts of outpatients, we set about checking the receipts submitted in April every year. The review involves picking out receipts which indicate the relevant diseases, mainly respiratory ones, including tuberculosis, lung emphysema, pneumoconiosis, interstitial pneumonia, chronic bronchitis, pleuritis, idiopathic interstitial pneumonia, asbestosis, silicosis, bronchiectasis and asthmatic bronchitis. A questionnaire is sent to each patient identified to get more detailed information about his/her occupational background.

The responses are reviewed and classified into three categories: A to C. Category A includes individuals whose diseases are likely to be occupational. Category B represents individuals who should be followed up. Category C accounts for individuals whose diseases are unlikely to be occupational. Additionally, individuals who are highly likely to have contracted occupational diseases are classified as "Special A". The receipts of hospitalized patients are reviewed every month. Among 1100 to 1200 receipts in a month, we pick out receipts indicating relevant diseases, mainly lung cancer and mesothelioma, but also others, such as lung emphysema and pneumonia.

2) Rereading of chest X-ray films

Every year approximately 22,000 workers participate in routine medical checkups, including chest X-ray examinations. Specialists are now proceeding to reread those chest X-ray films. The number processed is not very high, but they reread 3,000 films last year.

3) Screening for pneumoconiosis

Doken Union's head office and several locals (five locals last year) organize the exclusive pneumoconiosis screening and the routine medical checkups that include such screening. Approximately, 4,200 workers have received the pneumoconiosis examination.

4) Initiative of Mutual Aid Association

2. Encourage the workers to have medical checkups by specialists and acquire certification for compensation

The directors and staff of Tokyo Doken Union's locals contact the workers not only by mail but also call them directly to have medical checkups by specialists.

3. Effort to prevent asbestos exposure and legislate against asbestos

WS-B-05 presented by Naoki Toyama
Workshop: Asbestos and Construction

OSH Activities based on Participatory Approach at Construction Worksites

Naoki Toyama¹ and Yuji Natori²

1 Tokyo Occupational Safety and Health Center, Japan.

2 Kameido-Himawari Clinic, Tokyo, Japan

Abstract

More than 90% of imported asbestos was used for construction materials, and most of the asbestos materials exist now. Japanese construction workers who work at demolition sites and renovation sites have been exposed to asbestos, and risk control of asbestos will be necessary for long into the future. A construction trade union organizing construction workers, self-employed worker and small businesses started integrated OSH activities including asbestos risk control, applying a participatory approach.

Construction workers of a district branch of the trade union formed a committee for improving the OSH conditions of construction worksites. The members of the committee agreed to provide a basic training course targeting small construction worksites applying participatory methods: risk assessment using an action checklist, group work and action oriented approach, and they also agreed to implement training courses in associated local trade unions.

Independent OSH activities were developed through the following process:

- 1) identifying risk profile,
- 2) providing the action checklist,
- 3) checklist application at construction sites and collection of local good examples,
- 4) developing a basic training course and establishment of training materials, and
- 5) expanding the training activities into the local trade unions.

1) Supporting construction workers' independent activity, 2) collection of good examples and their horizontal development, 3) trade union network, 4) simple and effective materials, were important for starting and facilitating the activities.

WS-B-06 presented by Eiji Shibata
Workshop: Asbestos and Construction

A Study on Asbestos Exposure, Health Effects and Causes of Deaths among Construction Workers

Eiji Shibata¹, Hitoshi Kubota², Jian Sun³, Kiyoshi Sakai⁴, Ippei Mori², Naomi Hisanaga², Fumio Kobayashi¹

¹*Aichi Medical University, Japan*

²*National Institute of Industrial Health (NIOH), Japan*

³*The Institute of Health Economics, Canada*

⁴*Nagoya City Public Health Institute, Japan*

Abstract

Focusing on the members of the Construction Workers' Health Insurance Society, we have conducted various research projects on asbestos exposure in the construction industry. In the present report, we briefly outline our activities and research findings obtained so far.

We investigated the handling of asbestos-containing building materials and found that a worker would possibly be exposed to an asbestos concentration of 100 fibers/cm³ or more in her/his breathing area when cutting an asbestos-containing material with a radial arm saw.

We conducted a questionnaire survey among members of the All Kyoto Construction Workers Union, which revealed that those who had inhaled asbestos dust very often and sometimes accounted for 13.7% and 26.4%, respectively. The trade most frequently exposed to such situations was that of carpenter. The material most frequently used was asbestos slate.

Since 1988, we have interviewed members who showed asbestos-related symptoms on their chest X-rays, taken in regular checkups, and have advised them to have full examinations and medical treatment or have given them health guidance.

Using the data on 17,667 deaths of members who were in the Society for 1 year or longer between 1973 and 1993, we investigated the characteristics of the causes of their death in comparison with the general population of prefectures they resided in. Tracheal/ bronchial/lung cancer, accidents and harmful effects showed high overall standardized mortality ratios.

WS-B-07 presented by Jerzy Dyczek
Workshop: Asbestos and Construction



Surface of Asbestos-cement (AC) Roof Sheets and Assessment of the Risk of Asbestos Release

Jerzy Dyczek

Technology Building Materials Department, Krakow Technical University of Mining and Metallurgy, Poland.

Abstract

A number of samples of asbestos-cement roof sheets were taken from roofs of buildings in a small village, different towns and industrial centres.

Sample surfaces were observed in a SEM. It was found that surface corrosion depends on air pollution and is faster on AC roof plates in industrial centres and smallest on samples of AC plates from roofs in some small towns. Observations suggest, that AC plate breaking causes a serious risk of releasing asbestos fibres and that on new surfaces of a broken plate there are a number of asbestos fibres sticking out, partly damaged, and any mechanical effect may produce respirable fibres.

WS-B-08 presented by Susana Muhlmann
Workshop: Asbestos and Construction



Tracing the White Enemy: A Brief Guide to Recognizing Installed Asbestos in Buildings

Susana Muhlmann

Architect, Asbestos Removal Procedures and Legal Aspects Technical Advisor, Government of Buenos Aires, Argentina

Abstract

Since Hellenic times asbestos has been considered a magical material. It is a mineral easy to find and extract, perfect for thermal and acoustic insulation, fireproof and extremely durable.

There is not another material that fulfils all the properties of asbestos simultaneously; therefore, it is reasonable that asbestos had been included for centuries in so many structures. However, with the progress of time, scientific discoveries have revealed that with respect to people's health asbestos is as dangerous as it is magical.

That is why we all, doctors, lawyers, builders, experts, architects, government representatives and asbestos victims, among others, attend congress after congress in order to find solutions for this major issue.

Nevertheless, in the meantime, buildings contain installed asbestos which lots of people are permanently in contact with, having not a clue about the risk posed to their health.

Having information is the first step in discovering and providing proper protection from visible, invisible or hidden environmental enemies. Step by step, day after day working together, we can draw closer to the natural state of health we all deserve.

It is the aim of this workshop to provide a brief guide to the installed asbestos around us; its appearance, where it can be found and what to do when it is found.

Following the sketch of a hypothetical building we shall go through an imaginary survey toward potential asbestos hotspots, learning how to recognize the textures, colours and shapes it can take on for different applications and uses.

WS-C-01 presented by Hiroo Morita
Workshop: Trade Union Initiative

Efforts of Local Workers' Unions to Address Asbestos Issues

Hiroo Morita

All Japan Prefectural and Municipal Workers' Union (JICHIRO), Japan

Abstract

In Yokosuka City, we have the local trade union council, a collective body of trade unions derived from the former General Council of Trade Unions of Japan (SOHYO). Organized within the All Japan Shipbuilding and Engineering Union, the All Japan Garrison Forces Labor Union, the Japan Teachers' Union and the All Japan Prefectural and Municipal Workers' Union and others, the council makes efforts to deal with local issues. In 1988, pneumoconiosis (asbestosis) victims in Yokosuka filed a lawsuit against Sumitomo Heavy Industries Ltd., which was the first collective litigation case for workers' compensation led by trade unions.

As a regional movement, the local council and related groups took comprehensive measures against asbestos misuse, not only against the defendant company but also to pressure Yokosuka City Hall, the Labour Standards Inspection Office and courts, by appealing to the general public in the region. The scope of lawsuits has become extended as the All Japan Garrison Forces Labor Union filed another asbestos lawsuit against the U.S. Yokosuka Naval Base. The council believes it is necessary to raise public awareness of asbestos and its risks as a regional subject and to continue to help asbestos victims. Significantly, we, union members, have learned much about asbestos issues through these efforts.

In 1987, the city of Yokosuka had a program to eliminate asbestos from school buildings and other public facilities. At that time, we accepted the program without question; just another government order to be implemented. It became clear, however, that the government's program in those days did not deal with materials containing less than 5 percent asbestos. Based on this fact, the council conducted its own reviews in their workplaces, namely, all public facilities in Yokosuka City, and assessed the present situation of materials containing less than 5 percent asbestos, in parallel with the official review. Recently, some union members were exposed to polychlorinated biphenyls (PCBs) from abandoned condensers, revealing inadequate official management of dangerous materials.

We cannot help saying that it is not just a health issue for workers, or rather, a criminal act, because the above hazards were in public facilities. We believe that we, trade unions, bear the responsibility to investigate and reveal asbestos crime for what it is.

WS-C-02 presented by Masaaki Sato
Workshop: Trade Union Initiative

Prevention of Asbestos Exposure of Construction Workers and Workers' Compensation

Masaaki Sato

National Federation of Construction Workers' Unions (ZENKENSOREN), Japan

Abstract

The General Federation of Construction workers' Unions (ZENKENSOREN) is a collective body of 53 prefectural bodies of construction workers' unions which organize individual construction workers at their residences. It is Japan's largest industrial union with 700,000 members.

Asbestos, once commended as miracle mineral was used in a large variety of construction materials. Not recognizing its risks, many workers were exposed to asbestos during their construction work, such as spraying or processing materials containing asbestos, and eventually died of asbestos-related diseases without knowing the real causes of their terrible deaths. The Union started to address the asbestos issues in the middle of 1980s. Taking the 72nd General Conference of the International Labor Organization's (ILO) adoption of Asbestos Convention and its following recommendation in 1986 as a good opportunity, the Union set up its Asbestos Committee in 1988. Since then, the Committee has endeavored to raise awareness of the union members, conducting health surveys, making requests for national and local governments' agencies to address the issue, and conducting research and surveys in cooperation with specialists. Based on these efforts, the Union has issued two brochures since 1988, producing a video titled "Silent Time-Bomb" in 2002. The efforts have led Japan to ban the use of asbestos in ten manufacturing products including five construction materials in principle, starting from October 2004. There are still some issues remaining, however. Asbestos is not totally eliminated from construction materials; it is still used as a mortar additive and mixed into some coating materials; measures to prevent release of airborne asbestos fibers in demolishing houses and buildings are insufficient; there are challenges such as raising public awareness of the relationship between diseases and asbestos, or fighting for compensation for workers' accidents. To improve the current situation, the Union is making efforts to achieve a total ban on asbestos and to prevent health hazards in cooperation with related trade unions, citizen's organizations and medical experts.

WS-C-03 presented by Kinya Mizuguchi
Workshop: Trade Union Initiative

Asbestos Issues that Highlight Labor Union's Social Responsibilities

Kinya Mizuguchi

All Japan Shipbuilding and Engineering Union (ZENZOSEN), Japan

Abstract

On May 8, 1982, the daily *Yomiuri Shimbun* reported that, in the space of five years, 39 shipyard workers at Yokosuka shipbuilding companies and the U.S. Navy's Yokosuka Base had died one after the other from asbestos-related lung cancer. At that time, we had in place a labor union for Sumitomo Heavy Industries shipyard workers (Uraga Branch) and an association of the retired workers. However, we did not know that asbestos had killed fellow members until we saw the article.

The report called on the All Japan Shipbuilding and Engineering Union (ZENZOSEN) to reflect on its efforts for workers' safety and health. The union, by assuming safety and health issues were the responsibilities of businesses, had failed to act, and realization of this spurred the ZENZOSEN headquarters and its Uraga Branch into action. The branch soon then set up task forces to conduct health checkups and support victims in cooperation with related organizations. It demanded that industry stop using asbestos. In addition, it supported both damage suits by victims and out-of-court settlements through labor-management negotiations.

The ZENZOSEN headquarters demanded that the then labor and transport ministries and the shipbuilding industries ban all asbestos use and also instructed its branches nationwide to eradicate asbestos from their workplaces. As a result, currently no shipyard where ZENZOSEN organizes workers uses asbestos.

Over the last several years, some branches won extra compensation schemes for asbestos-related diseases and pneumoconiosis after retirement. Those schemes are significant in that they give victims relief and clarify the industry's accountabilities.

Asked who is responsible for shipyard workers' asbestos-related sufferings, we have to respond that we at ZENZOSEN also are responsible. Of course, the companies that forced workers to engage in hazardous jobs and the government that allowed the use of asbestos over the years without even checking its safety should shoulder much of the blame. But we believe that we cannot fully fulfill our responsibilities toward current and past union members if we do not remember our past failings.

WS-C-04 presented by Hiroshi Watanabe
Workshop: Trade Union Initiative



Prevention of Further Asbestos Exposure during Water Pipe Work and Survey on Health Effects of Asbestos Exposure among Active and Retired Employees

Hiroshi Watanabe

Japan Water Supply Workers' Union (ZENSUIDO), Japan

Abstract

In approximately 10 years, from around 1957, during Japan's high economic growth period, the Waterworks Bureau of the Tokyo Metropolitan Government installed approximately 980 km of asbestos pipes in Tokyo's 23 wards, as well as approximately 2,500 km of municipal asbestos pipes in the Tama area. Removal work was more or less completed by around 1985, but there still remain a few dozens kilometers of asbestos pipes today, mainly in the Tama area. Apart from some directly managed undertakings, Bureau officials have been responsible for on-the-spot supervision and observation of work. Implementation of dust control measures has been compulsory since 1987; however, such measures are not always complied with in practice.

At the end of 2002, the Tokyo Water Supply Workers' Union (TOSUIRO) submitted a "Request for the Prevention of Further Asbestos Exposure and Survey on the Health Effects of Asbestos Exposure among Active and Retired Employees". In reply, the Water Bureau promised (i) to perform studies on how to perform removal work and implement optimum methods, and (ii) with regard to the "early detection of malignant mesothelioma due to asbestos exposure and health checkups," to conduct interviews/work experience surveys and direct that chest x-rays be taken in preliminary checkups, as well as that pulmonary function testing and CT scanning be used in detailed examinations.

In October 2003, the Bureau performed asbestos pipe cutting simulations. TOSUIRO requested that past work practices be reproduced as faithfully as possible during these simulations. In the case of some of the cutting methods, results revealed high values for dust concentration and other parameters, as well as the fact that dust would diffuse into the air immediately after the work was performed. However, the Bureau did not go as far as to estimate the effects of such asbestos exposure.

In future, investigators should be educated as part of efforts to establish a TOSUIRO survey system for rating actual work practices. Union members also require proper asbestos education as relatively few undergo health checkups.

WS-C-05 presented by Satohiro Konya
Workshop: Trade Union Initiative

Efforts to Establish a System to Compensate Asbestos Victims

Satohiro Konya

All Japan Garrison Forces Labor Union (ZENTYURO), Japan

Abstract

A newspaper in June 1996 reported that people who worked in the U.S. Yokosuka Naval Base were three times more likely to die from lung cancer than the rest of the nation and more prone to pneumoconiosis and bronchitis. The results came from a retrospective cohort study on the mortality of asbestos-exposed shipyard workers, led by Prof. Norio Kurumatani of Nara Prefectural Medical University.

Soon after the report, the All Japan Garrison Forces Labor Union, with cooperation from the Kanagawa Occupational Safety and Health Center, urged action from the Kanagawa Prefectural Government, then employer of the shipyard workers. As a result, the local government launched in 1997 a three-years project to inform 13,353 former workers about a Health Service Note, a certificate that offers free health checkups for retired workers by the government.

We also supported the three lawsuits filed by former U.S. naval base workers against the government. The workers have demanded compensation for lung problems contracted due to insufficient health and safety measures in the workplace. After the plaintiffs won the first lawsuit in October 2002, we demanded that the Defense Facility Administration Agency quickly compensate asbestos-related pneumoconiosis patients, better manage work conditions and adopt health and safety precautions. We pointed out that the government is not exempt from ensuring worker health and safety, even if it does not have control over the U.S. naval bases.

The Defense Facility Administration Agency said it "takes the ruling seriously." It further said it would "take concrete measures to better meet other pneumoconiosis victims' demands and the government's duty to protect employees' health and safety. The solution must be comprehensive, given previous court rulings and the possibility of former workers contracting pneumoconiosis in the future."

WS-C-06 presented by Yasunari Fujimoto
Workshop: Trade Union Initiative

Prefectural High Schools' Asbestos Issues

Yasunari Fujimoto

Japan Teachers' Union (JTU), Japan

Abstract

A total of 51 facilities in 46 public high school buildings in Kanagawa Prefecture, including gymnasiums and sports-related facilities, use asbestos felt as a construction material. The product used, "Felton R-30," consists of corrugated steel roofing sheet lined with 10 mm thick asbestos material. The composition of this material is 85% or more chrysotile asbestos with 15% or less sodium silicate. Sodium silicate is used to bind the asbestos, but it deteriorates with time and eventually becomes useless, causing the asbestos felt to detach easily from the steel sheet.

Kanagawa Prefectural High School Teachers' Union conducts inspections for airborne asbestos at the facilities that have been found problematic by visual checks. The characteristics of asbestos felt, however, make it hard to express enough numerical data to show its airborne hazard. There are some cases where students are exposed to airborne asbestos during class hours, when asbestos felt comes off from the steel sheet. It is a critical health hazard for the students. The total removal of asbestos from school buildings, which is our hope, has not been carried out yet in Kanagawa, due to the financial hardship of the prefectural government, as is the case for other municipalities across Japan. Under such circumstances, sprayed vermiculite and pearlite materials were identified at 121 sites of 78 facilities. Currently those materials are being examined to see whether they are contaminated with asbestos or not. In this way, asbestos issues at education facilities are still left unattended in many cases. This is a status report of the issue.

WS-D-01 presented by Naoya Endo
Workshop: Asbestos Litigation in Japan

Reparation Claims against Johns Manville Corporation

Naoya Endo

Lawyer, Faculty of Law of Toin University of Yokohama, Japan



Abstract

The presenter conducted research on the actual situation of a vast number of asbestos lawsuits mainly against Johns Manville Corporation in 1983, and reported for the first time in the social science field in Japan in 1984 the fact that asbestos lawsuits had become the greatest product liability litigation in the U.S. history, warning that Japan would also face serious damages in future ("Asbestos Mass Tort Litigation in the U.S. and Prospective in Japan ", L.L.M paper presented at University of Washington Law School and "Management of Occupational Disease – Asbestos-Related Diseases" (in Japanese), 1st edition in 1984/Revised in 1992, Sogo Rodo Kenkyujo, p.215).

In 1982, Johns Manville Corporation filed for bankruptcy under Chapter 11 of the United States Bankruptcy Code. In 1990, lawyers representing the victims visited Japan and requested filing of reparation claims against the firm.

Thus, the presenter, Akira Mori and other lawyers represented approximately 50 victims in Japan and filed a reparation claim via a U.S. law firm since 1990. Unfortunately, the court accepted the following reparation only: 35,561 U.S. dollars in total for 15 victims.

WS-D-02 presented by Takeshi Furukawa
Workshop: Asbestos Litigation in Japan



U.S. Naval Base Workers' Legal Struggle for Pneumoconiosis Damages

Takeshi Furukawa

Lawyer, Furukawa Takeshi Law Office, Japan

Abstract

Yokosuka City, which is located at the entrance of Tokyo Bay, has been historically an important naval base with a major navy dockyard since the Meiji Restoration. After Imperial Japan was defeated in 1945, the U.S. navy requisitioned the base and the dockyard, and now the U.S. Seventh Fleet is using the facilities under the Japan–U.S. Security Treaty.

After the defeat in 1945, the U.S. Navy established a naval ship repair facility at the Yokosuka Base to repair and renovate various naval ships, such as aircraft carriers and submarines. During the Korean War and the Vietnam War, the workload at the facility peaked.

Although a huge amount of asbestos has been used in naval ships to prevent shell-triggered fires from spreading, the U.S. Navy paid scant attention to the health risks which its Japanese employees faced, and failed to warn them of the risks related to asbestos. As a result, the workers installed and/or removed asbestos products without any protective measures supplied until the 1980s. From 1980, the legally obliged pneumoconiosis medical examination came to be conducted on a large scale; then the fact that Japanese workers at the base were affected with asbestos-induced pneumoconiosis was revealed.

In July 1999, 12 former base workers (in some cases, their bereaved families) filed a collective damage suit in the District Court against the Japanese Government, their employer. In October 2002, the District Court gave a decision which favored all the workers. The Government, however, appealed, claiming that three of the twelve workers filed after the statute of limitations on the damage claim had expired. The High Court decided in favor of the Government and the Supreme Court supported the High Court's decision.

Following the initial case, 22 and 11 former asbestos workers collectively filed similar damage suits in the District Court. These second and third suits are now pending.

WS-D-03 presented by Kazuzo Nomura
Workshop: Asbestos Litigation in Japan



Asbestos-Related Pneumoconiosis Lawsuits by Shipyard Workers in Yokosuka

Kazuzo Nomura
Lawyer, Kanagawa Sogo Law Office, Japan

Abstract

The first asbestos-related pneumoconiosis lawsuit against Sumitomo Heavy Industries

Eight former employees who for years had worked at Yokosuka's Sumitomo Heavy Industries shipyards filed a damages lawsuit against the company in Summer 1988. The plaintiffs claimed that they fell ill with pneumoconiosis and became susceptible to lung cancer and mesothelioma, after longtime exposure to dust containing asbestos and other hazardous chemicals. The company denied the allegation. The court hearings continued for eight years and eight months until a settlement was reached in Spring 1997. (After the settlement, one plaintiff died from cancer and one died from mesothelioma.)

After the settlement, the company and the labor union reached an agreement to give extra compensation to retired workers suffering from pneumoconiosis and other asbestos-related diseases. It was the first agreement to offer extra compensation to retired workers in the shipbuilding industry, leading other shipbuilding companies to follow suit.

The filing of the second lawsuit

In Summer 2003, the second lawsuit against Sumitomo Heavy Industries was filed with the Yokohama District Court, Yokosuka Branch. The case is still before the court.

The plaintiffs were 11 former employees suffering from pneumoconiosis and the bereaved families of 3 employees who died from mesothelioma. Claiming that these cases were not covered by the agreement, the company refused to compensate the victims. The plaintiffs are aiming to reach a new agreement that will provide relief to a wider range of former employees.

WS-D-04 presented by Tetsuro Ota
Workshop: Asbestos Litigation in Japan



Close Plaintiffs–Lawyers Collaboration in a Lawsuit

Tetsuro Ota

Chairman of the primary plaintiff party for the Mitsubishi-Nagasaki Shipbuilding Pneumoconiosis Lawsuit, Japan

Abstract

Our lawsuit started on 25 December 1998 and reached a settlement through negotiation on 7 June 2002. To begin with, we demanded a total payment of 1.28 billion yen in settlement for 77 plaintiff victims and 44 bereaved families. We then included in the settlement document that the defendant should not only apologise but commit themselves to prevent further pneumoconiosis suffering. It took 3 years and 5 months to reach a settlement, but in fact as long as 15 years of various efforts prior to filing of suit. We formed a patients' group to promote communication between members while the labor unions made continuous efforts to negotiate with the firm to improve the dust-producing work environment. In 1997, just before the filing of suit, we created a parent organization to the plaintiff party, called the "Group for Requesting Mitsubishi Heavy Machinery for Pneumoconiosis Compensation," that held negotiations with the firm mainly about compensation, which eventually broke down. If compared to volcanic activity, it was as if the magma were creating subterranean rumblings before the eruption – the filing of suit.

The defendant's plan was to prolong the trial by raising medical debates. To achieve this purpose, the defence acted outrageously, attempting to ignore the current system, by requesting to have every single plaintiff judged by CT scanning, and even raising objections to governmental decisions under the pneumoconiosis law for some plaintiffs. Despite such desperate resistance by the defendant, the situation changed for the better all of a sudden when the Nagasaki District Court rejected the request for CT scanning and gave settlement advice on its authority.

The plaintiff party dissolved after the settlement, but we created the "Mitsubishi-Nagasaki Group for Eradication of Pneumoconiosis" and have now been working with a constant awareness that the struggle for the eradication of pneumoconiosis is a struggle to protect human rights.

WS-D-05 presented by Akio Shiraishi
Workshop: Asbestos Litigation in Japan



The First Malignant Mesothelioma Case in Power Plant Worker in Japan

Akio Shiraishi

Ehime Occupational Safety and Health Center, Japan

Abstract

These impressive ratios are before us; 696 : 1 and 11,871 : 1.

These ratios are respectively the ratio of the number of class actions filed from power plant workers in federal courts in the United States in 1991 to the equivalent in Japan, and the ratio of the number of participants in the class actions in the US to the equivalent in Japan. These data do not indicate that there are few asbestos victims in Japan, but that very few asbestos victims have been provided with relief in comparison with the population of potential asbestos victims in Japan, and that the magnitude and extensiveness of asbestos hazards are poorly recognized.

This malignant mesothelioma case suggests many problems in dealing with asbestos-related diseases in Japan.

- Why did the victim's bereaved family have to file a damage lawsuit with the court instead of applying for compensation benefits under the existing workers' accident compensation scheme?
- Why was the corporation reluctant to recognize itself as being responsible for his death?
- Why were there few victims in power plant workers?

The hazardousness of asbestos was well established. The criteria for asbestos-related diseases to be recognized as occupational diseases are clearly defined and the compensation system for asbestos victims is also established. Patients of malignant mesothelioma are diagnosed in university hospitals or other specialized institutions, and case reports followed by results of dissections are reported in medical societies. But victims were not told of the workers' accident compensation insurance system. As a result, the bereaved families have had no option but to go to court, because the legal period for applying for workers' compensation insurance had already been passed.

The subcontracting system, which characterizes the Japanese industrial structure, forces subcontractors and sub-subcontractors to accept severe contracts under inferior conditions and to abandon occupational accident and disease awards.

As the asbestos victim in this case was a regular employee, it was a very important case related to power stations all over the country.

WS-D-06 presented by Hiroko Murakami
Workshop: Asbestos Litigation in Japan



Domestic Exposure Case of Cement Pipe Worker's Son in Saitama

Hiroko Murakami

*Japan Eternit Pipe Branch, General Workers' Union, Tokyo, National Trade Union Council,
Japan*

Abstract

In May 25, 2004, we lost a lawsuit at the Tokyo District Court. That was the result, three years and three months after the case was filed. The District Court accepted the claims of the company which did not bring forth any witnesses. It did not admit evidence that the plaintiff's son suffered from mesothelioma and said the company could not have foreseen mesothelioma could result. The case is now before the Appeals Court.

If we lose the case again, what will happen? Please think about that at the Asbestos Conference. How many asbestos victims have been shrouded in darkness? As the plaintiff in the first domestic asbestos exposure case in Japan, I would like to say that our case was one waiting to happen and should be the last. We were forced to handle asbestos without receiving information that it is a hazardous material. As a result, so many people became victims of occupational hazards. The production of asbestos cement pipes was stopped due to a sudden withdrawal of capital, and the corporate labor union was dissolved after many employees were dismissed. The company dismissed employees taking sick leave for occupational diseases and violated the Labor Standard Law by attacking the labor union that applied for workers' compensation. Please give your support to our battle.

Case Study: Death of a Hotel Boiler Maintenance Man from Mesothelioma

Ryo Matsuda
Lawyer, Koderu-Matsuda Law Office, Japan

Abstract

1. Outline of the case

(1) Victim's job description

The victim joined the defendant firm in 1963 and since then had been responsible for the maintenance of building services inside machine and boiler rooms at the Sapporo Royal Hotel until he died in April 2002. The building services workers at the hotel were in charge of the operation of boilers installed in an underground boiler room to provide hot water and heating for the hotel. They were also responsible for other asbestos-related jobs as described below.

They were in charge of replacement of asbestos-containing packing materials used on the flanges of boiler combustion chambers. The replacement work involved the cutting, tying or installing of packing asbestos. Plate- and string-type packing asbestos were used. The plate-type was cut and tapped by the workers. The string-type would scatter just by unlacing.

The building services workers were also responsible for getting into the space above the suspended ceiling (under the roof) to repair and/or inspect ductworks. Asbestos had been sprayed on the underside of the roof, which flaked onto the floor. In some locations, the space between the roof and ducts was as small as 40 cm, and the workers had to make physical contact with the sprayed asbestos. Asbestos would exfoliate and scatter in the air just by touching.

On the walls of the boiler room, asbestos had been sprayed everywhere above waist height. The building services workers were in charge of the replacement of flange gaskets once or twice a year. In so doing, they had to look at the back of high-pressure header-type boilers. The space between the back of the boilers and asbestos-sprayed walls was as narrow as 30 to 40cm. Asbestos would scatter into air when just rubbed with their uniforms.

The boiler room was swept by the workers once a month, during which time fallen asbestos dust would swirl on the floor. The machine and boiler rooms had an air intake system, which let air in from the 3rd level rooftop by turning on an underground fan to introduce air into the machine room. However, no air ventilation system was in place.

The sprayed asbestos on the walls of machine and boiler rooms had deteriorated to such an extent that its fibers would scatter into air just by touching.

The victim's physical condition started deteriorating around April 2001. On 21 June in the same year, he was diagnosed with asbestos-caused malignant pleural mesothelioma. He died of the disease in April 2002.

He qualified for worker's compensation on the basis that he developed malignant pleural mesothelioma due to the “asbestos-scattering” work environment he was in at the hotel.

(2) Safety measurements adopted by the hotel

Although the building services workers were doing asbestos-related jobs at the hotel, the defendant firm (i) failed to provide an air ventilation system to prevent the retention of dust on the worksite, (ii) not only failed to provide dust respirators but also failed to provide any education about the risk of asbestos dust, and even (iii) failed to instruct the workers to spray water on site. The firm also (iv) failed to appoint any health controller or provide checkups until around 1980 when it started providing checkups for night-shift workers, but even after that still failed to consider asbestos risks in checkups or to give detailed explanations about the results of checkups to the workers, and furthermore, (v) failed to completely remove the sprayed asbestos at the hotel after its surface was found to be deteriorating.

2. Purpose of Filing Suit

After the victim's death, the bereaved family requested the hotel to accept responsibility for the fact that the victim had died of malignant pleural mesothelioma because of the work environment, apologize to the family and take relevant measures to prevent similar accidents. However, as the firm did not accept its responsibilities and refused to apologize, the family decided to file suit against it to clarify its legal responsibilities on the basis of breach of duty to adopt necessary safety measures.

3. Defendant's Actions after the Filing of Suit

The defendant has been categorically denying everything from basic facts, such as the details of asbestos-related jobs, to the relationship between the work at the hotel and the development of malignant pleural mesothelioma, as well as the hotel's legal responsibilities including the duty to adopt necessary safety measures.

4. Progress of Suit

The 1st oral proceedings were held on 27 August 2004, and the 2nd on 15 October in the same year.

WS-E-01 presented by Noor Jehan
Workshop: Epidemiology and Public Health



The Hazards of Using Scrap Asbestos from Ship-Breaking Operations and the Effect of Environmental Exposure to Asbestos on Women's Health in Sari Kili, NWFP, Pakistan

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² *Khyber Teaching Hospital, Peshawar, Pakistan*

³ *Integrated research and development Organization, Pakistan*

Abstract

Survival of women is closely linked to sustainable planning and management. They are the first line of defense. Women are often most vulnerable to the environmental risks caused by para-occupational exposure. There is strong evidence of the irrevocable damage caused by environmental assaults on women. The intensity of para-occupational exposure of women is still unrecognized and uncharacterized to a large extent. Official action and public awareness remain inadequate regarding this issue in Pakistan in general and particularly in NWFP.

During this study the asbestos sheets cutting unit situated in Dagi Kili, District Mardan was taken as a case study. The unit uses asbestos containing sheets obtained from the scrapping of ships at Gaddani Ship Breaking Yard located in Baluchistan Province. From here various types of pure and processed asbestos in the form of sheet and fine fiber has been distributed throughout the country particularly to the North West Frontier Province (Mardan & Swabi cities).

Two sets of air samples, one from the said unit and the other from the neighborhood village called Sari Kili, were collected to measure the airborne asbestos fiber level within the unit and in the neighborhood. XRD, Polarized Light Microscopic and Scanning Electron Microscopic studies were conducted for qualitative and quantitative analyses. The results indicated that the airborne asbestos fiber concentration was higher in Sari Kili compared to the cutting unit. The exposure limit was 1,000 times more than the international permissible exposure limit of airborne asbestos fiber, which proved that these fibres originated from the same unit and migrated in the neighborhood.

After the confirmation of the sample results, a detailed survey was conducted to find out the relationship of the exposure of women and children staying in the vicinity of asbestos, particularly the women, and the potential risks posed by the asbestos fiber concentration in the target area. It was found that the majority of women were suffering from various lung diseases, including lung cancer, in the target area.

WS-E-02

Workshop: Epidemiology and Public Health



Implications of the Excessive Asbestos Related Disease Burden among Retrenched South African Miners Exposed to Chrysotile Asbestos

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[PowerPoint presentation submitted – authors could not attend]

Abstract

Chrysotile asbestos was mined in South Africa from the early part of the 20th century. African Chrysotile Asbestos (ACA), the biggest mine and mill, started operations in 1937 and closed in 2002. From 1975 to 1992 production of chrysotile in South Africa remained on average at 100,000 tons per year (with ACA contributing more than 90%) and declined to around 20,000 tons in 2000.

The number of workers employed at ACA in the 1960s and 1970s was between 2,000 and 2,600 at its peak. In the 1990s the numbers declined gradually and were reduced to about 250 by 2000. Annual average asbestos fibre level counts reported by ACA for the period 1977 to 1995 were below 1 fibre per ml with the exception of 1977 (2.5 fibres per ml), 1979 (2 fibres per ml) and 1983 (1.21 fibres per ml).

The National Union of Mineworkers (NUM) in South Africa, requested occupational medical practitioners to conduct audits of occupational health surveillance programmes at the ACA mine. The audit process of medical records, chest radiographs and lung function tests was completed prior to retrenched workers being repatriated to their homes, including to neighbouring countries Swaziland and Mozambique.

Between 1995 and 2000 the medical records, chest radiographs and lung function tests of more than 1,200 ACA asbestos mine-workers were assessed for asbestos related diseases. The prevalence of asbestos related diseases (ILO score $\geq 1/0$) for the different evaluations varied between 21 and 36%. The findings are comparable to the high prevalence of pneumoconiosis (mainly silicosis and associated tuberculosis), reported by other investigators, among migrant workers from the Eastern Cape Province of South Africa (22-37%) and neighbouring Botswana (26-31%).

The findings of these audits suggests an enormous disease burden associated with exposure to chrysotile asbestos in spite of the recorded low fibre levels, and highlights the importance of worker organization in negotiating exit medical examinations of retrenched workers.

The information so obtained contributed to:

- the revision of the exposure standard for asbestos due to the health risks associated with chrysotile asbestos;

- the inclusion of medical surveillance in the new asbestos regulations;
- the insertion of post-employment medical surveillance in retrenchment agreements negotiated by trade unions;
- heightening the impetus for civil litigation among asbestos exposed workers and community members.

Mortality Experience in an Historical Cohort of Chrysotile Asbestos Textile Workers

Carlo Mamo¹, Giuseppe Costa²

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² *Department of Public Health, Turin University, Italy*

Abstract

Introduction and aims

The issue of whether exposure to chrysotile asbestos causes lung cancer, mesothelioma and non-malignant diseases was investigated in an historical cohort in Grugliasco, Italy, where the largest Italian asbestos textile factory had been in operation until 1986. In this urban area there are important mortality differences by social class.

Methods

The study cohort comprised 1,653 asbestos textile plant workers. Vital status was ascertained by means of postal follow-up. The cause of death was ascertained through a record linkage with the national mortality registry. Standardized Mortality Ratios (SMR) were computed using the manual workers population of Turin as a reference (in order to reduce the healthy worker effect and the bias from social class), adjusted for age and birth area. The observation period went from 1/1/1981 to 31/12/1995

Results

Overall mortality was significantly in excess, in both males (SMR=212; 119 obs.) and females (SMR=265; 84 obs.). Cancer mortality was significantly in excess (SMR=194 males; SMR=261 females). Statistically significant excesses for pleural mesothelioma (SMR=3,322 males; SMR=13,248 females) and lung cancer (SMR=302 males; SMR=523 females) were observed. Other sites of cancer in excess were: larynx, stomach, pancreas and brain. Mortality excesses for asbestosis (SMR=12,797 males; SMR=3,124 females), ischaemic heart diseases (SMR=139 males; SMR=164 females) and cerebrovascular diseases (SMR=159 males; SMR=173 females) were estimated. Analysis for length of employment and year of hire evidenced a correlation between mortality rates and length of employment and the latency period for the tumours.

Conclusions

These results confirm that occupational exposure to asbestos causes lung cancer and malignant mesothelioma. Moreover, the results suggest, in agreement with previous studies, a role of the exposure to asbestos in the etiology of non-malignant diseases (ischaemic heart diseases and cerebrovascular diseases).

WS-E-04 presented by Neonila Szeszenia-Dabrowska
Workshop: Epidemiology and Public Health



Asbestos as an Environmental hazard – the Example of the Szczucin Community

Neonila Szeszenia-Dabrowska
Nofer Institute of Occupational Medicine, Lodz, Poland

Abstract

This paper presents data on the incidence of mesotheliomas and cause-specific mortality among inhabitants in the asbestos contaminated area in the vicinity of an asbestos-cement plant.

In 1959, an asbestos-cement factory was founded in a rural area of Southeast Poland. Apart from chrysotile asbestos, crocidolite was used till 1985 chiefly for the manufacture of pressure pipes. The blue asbestos made up 15% of the mean annual tonnage of the processed asbestos. It was found that soon after asbestos production had started the process waste was made available to the local community. For over thirty years asbestos waste of all kinds, both wet - process sludge - and dry from pipe and sheet grinding, were exploited for the hardening of roads, paths, farmyards and sports fields and as construction material components. This has contributed to the scattering of asbestos emission sources over the area and to the ubiquity of asbestos waste containing large amounts of blue asbestos, visible to the naked eye. The contaminated area covers about 12,000ha and has a population of 14,000.

The project was a combination of a cohort study and epidemiological observation of all cancer cases. In the period 1987-2004 among the population of the Szczucin district, 58 cases of pleural mesothelioma were recorded. The risk of mesothelioma is 125 times as high as for the general population of Poland. The general mortality and mortality from asbestos-related diseases in the Szczucin district was compared with mortality of the population of a neighbouring district which was free of asbestos. The cohort consisted of people who inhabited these districts for at least 3 years between 1975 and 2002.

The health of the district inhabitants, which reflects the ecological hazard over this territory, requires immediate extensive activities to improve the environment and prevent adverse health effects.



Why is the Lung Cancer Mortality among Ironworkers High?

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³*Aichi Medical University, Japan*

Abstract

We have been engaged in a cohort study on the mortality of members of a construction workers' health insurance society to evaluate the influence of exposure to hazardous factors such as asbestos on the health status of construction workers. In the study, we observed significantly elevated standardized mortality ratios for cancers of the trachea, bronchus and lung among ironworkers (2.88, 95% CI: 1.44-5.15) compared with the Japanese male population. In addition, according to the chest X-ray investigation in the society, the prevalence of pleural thickening among ironworkers (9.3%) was higher than that for workers in general (2.1%).

In order to elucidate the background of the above-mentioned findings, we carried out a questionnaire survey by mailing. The subjects of the survey were ironworkers and two relevant jobs, welders and reinforcing-bar placers. The questionnaire consisted of questions on previous experiences in 18 types of jobs with possible exposure to hazardous substances such as asbestos, subjective respiratory symptoms, and smoking history.

Of a total of 1,021 workers, 452 (44.3%) responded, and complete answers were obtained from 398, comprising 202 ironworkers, 142 welders and 54 reinforcing-bar placers. Some of the ironworkers did welding as well as their basic tasks. Among 202 ironworkers, rates of experience in asbestos-related jobs such as building demolition, handling asbestos-slate board, installation/removal of heat-insulation materials, working in asbestos-sprayed buildings and handling calcium silicate board in the past were significantly higher than other groups. The combined percentages of current smokers and ex-smokers in the three jobs ranged from 70 to 87%.

Taking into account the high frequency of asbestos exposure and welding work experienced by ironworkers shown in the present questionnaire survey, and no significantly excess deaths by cancers of the trachea, bronchus and lung in welders demonstrated in our cohort study, we suspect that the elevated mortality from lung cancer in ironworkers is associated with their asbestos-related jobs.

WS-E-06 presented by Yuichi Ishikawa
Workshop: Epidemiology and Public Health



Time Trend of Asbestos Concentration in the Lung of Lung Cancer Patients in the Japanese General Population

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Abstract

To investigate the causes of rapidly increasing lung cancer in the general population of Japan, we analyzed time-trends of asbestos concentrations in lungs. We examined primary lung cancers (8 in the 1950s, 47 in the 1970s and 53 in the 1990s) in terms of asbestos deposition in the lung. Also, we compared asbestos concentrations in the lung between primary and metastatic lung adenocarcinomas in 1970s. Mean asbestos body concentrations (AB) (numbers per g of lung (dry)) were 559, 1,842 and 353 in the 1950s, 1970s and 1990s, respectively. AB in primary cancers in the 1970s was 2,050 (n=48) in males, significantly higher than that of metastatic cancers, 703 (n=18), although the difference was not significant in females. A statistically significant increase in the concentration of 1970s primary lung cancers was noted. However, since the lung cancer incidence in Japan has been continuously rising from 1950 to 1990, asbestos exposure is not deemed to be a main cause of the recent increase of lung cancer in the period.

Is Chrysotile Asbestos Safe and Healthy for the Developing World?

Zulmiar Yanri

Director of Occupational Health Inspection, MOMT, Rep. of Indonesia

Abstract

Indonesia has the fourth largest population in the world: 212 million in 2002. As a developing country with such a big population, Indonesia has become a potential market for hazardous chemicals and the relocation of hazardous chemical industries. Chrysotile asbestos is still widely used in Indonesia for building materials (roofs, ceilings, flat sheet board, corn block), heat insulation, brake systems (linings, pads) and many other products, which consume more than 60 metric tons annually (FICMA, 2004). Until now the government of Indonesia banned only crocidolite use (Government Regulation No. 74 of 2001, MOMT Decree No 3 of 1985), and allows only chrysotile to be imported. In the period 2001-2003 the total amount of imported chrysotile decreased slightly; however, it may increase in 2004 (FICMA, 2004).

Reported cases and surveillance of asbestos related diseases in Indonesia provide insufficient data to determine which type of asbestos is responsible for a given health effect (Indonesian NOSHC). On the other hand, while many studies on chrysotile asbestos have shown that chrysotile has a lower biopersistence than other kinds of asbestos (Dunnigan J, 2003; Bernstein DM, Rogers R and Smith P, 2004) and hence, it is argued, also a lower toxicity, it is still debatable whether the use of chrysotile is safe and healthy for workers and the environment.

At the recent UNEP and FAO meeting held in Geneva in September 2004 concerning the Rotterdam Convention, the inclusion of chrysotile into the PIC procedure was postponed due to insufficient data on the impact of chrysotile on health and the environment, and most important "economic reasons for its usage" (UNEP/FAO/RC/COP.1/15, Sept 2004). On the other hand, five types of amphibole asbestos (amosite, tremolite, crocidolite, actinolite and anthophyllite) have been included in the PIC procedure. That economic reasons were the most important factors behind the postponement of the inclusion of chrysotile asbestos may be inferred from the configuration of countries which proposed the inclusion (European Union, Switzerland and Chile) and countries which tried to maintain the chrysotile status quo (such as Canada, China, India, Indonesia and Russia). The first group are relatively developed industrialized countries, whereas the second group comprise highly populated and developing countries, except for Canada, which is the biggest chrysotile exporter to Indonesia. The meeting also noted that economic and trade reasons are not justifiable considerations for not including hazardous chemicals in the PIC procedure.

WS-E-08 presented by Wisanti Laohaudomchok
Workshop: Epidemiology and Public Health

The Study Project for Health Hazards Evaluation in Asbestos-Processing Industries in Thailand

**Wisanti Laohaudomchok, Narong Kongduaykaew, Preeyanun Likhitsan,
Chittima Veeradejkriengkrai**
National Institute for the Improvement of Working Conditions and Environment (NICE)

Abstract

This study project was conducted as a major activity of the National Institute for the Improvement of Working Conditions and Environment (NICE) in 1999 through 2001. The objectives are: 1) to determine average airborne asbestos concentrations in various work processes compared to the standards; 2) to identify other occupational safety and health (OSH) problems; and 3) to recommend appropriate preventive and control measures for working environment improvement. Eleven workplaces were selected for this study, categorized into 4 industrial groups. A total of 107 air samplings was conducted to determine levels of asbestos concentration. A Questionnaire survey was also conducted to evaluate workers' health conditions and other OSH issues. From laboratory analyses, 36.45% of the air samples examined exceeded the permissible exposure limit of 5 fibers/cc. Moreover, a significant proportion of workers did not use any, or used inappropriate, protective measures. Recommendations aimed at working environment improvement were formulated for employers, workers, and concerned authorities. Extensive follow-up inspections have been carried out by local labour protection offices. Overall, harmful working environments have been continually eliminated. The outcomes from this study have been used as guidelines for further OSH planning and activities in Thailand.



Countermeasures for Asbestos at Ironworks

Hiroshi Udo

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Japan*

Abstract

Labor in the iron industry often involves high-temperature processing using hot metals and molten steels, as well as the frequent use of asbestos as a heat resistant or insulation material. Given that no studies have ever been performed on asbestos problems in iron foundries, I present a case study on an iron foundry company that started dealing with asbestos at an early stage.

At an iron foundry, use of asbestos is found in the following:

- Blast furnaces/steel converters/rolling
- Hot blast stoves
- Molding boards for steel making/casting
- Boilers at power plants
- Brake lining for cranes

The iron foundry company cited here started dealing with asbestos when dust emission caused by the high-pressure air cleaning of asbestos for steel making/casting molding boards emerged as a problem, and use of rock wool as an alternative material started in 1977. In the 1978 revision of the company-wide work environment control manual, the company set forth stricter environmental control criteria for asbestos, setting the asbestos concentration limit at 0.2 fibers/cm³.

Yokosuka Kyosai Hospital's 1982 report on asbestos lung cancer among shipbuilding workers prompted even stricter asbestos controls. In 1983, the management of the foundry compiled an asbestos handling manual, which prohibited use of asbestos for new facilities. In the same year, the company replaced asbestos with glass fiber in drop curtains of blast furnaces for duct collection. In 1988, the company conducted internal fact-finding surveys and started sampling research. In 1990, it was found in the analytical results that 161 (85.2%) out of 189 samples contained asbestos. In the same year, the company started to use non-asbestos alternatives for crane brake linings (an asbestos content of 40% to 50%). Also in the same year, the old naval shipyard reported malignant mesothelioma among workers of private shipbuilding companies. The foundry company then requested its relevant departments to remove all asbestos from existing facilities by May 1992. In the same year, all employees were examined for pleural thickening using chest X-rays. Of 2,689 employees, 16, 11 and 21 were diagnosed as IIIa, IIIb and IV, respectively (48 in total: 1.79%). Follow-up surveys are currently underway.

To date, none of those employees have been found to develop asbestos-related tumors. Removal of asbestos is nearly complete, although it is still found in some existing facilities or part of brake linings for which no alternative materials are available. The company is now making efforts to remove all asbestos. Today, industry-wide efforts are needed to deal with asbestos to prevent asbestos related health problems in the iron industry.

WS-E-10 presented by Tao Li
Workshop: Epidemiology and Public Health



Current Status in the Use of Asbestos and Health Effects in China

Tao Li, Dehong Li

Institute of Occupational Health and Poison Control, Chinese Center for Disease Prevention and Control (CDC), China

Abstract

China is one of the leading countries in the world in the production and use of asbestos. Based on rough statistics, the total reserves of asbestos are about 10 million tons of chrysotile and 45,000 tons of crocidolite, located mostly in Qinghai, Sichuan, Xinjiang and Shanxi provinces; output was about 450,000 tons of chrysotile and about 390,000 tons of products containing asbestos in 1996. There are about 100,000 workers exposed to asbestos. An epidemiological study showed that the number of cases of asbestosis at the end of 2003 was 6984 with about 800 deaths. The prevalence of pleural plaques is about 51% in patients with asbestosis and 15% in exposed workers in general. The number of cases registered as lung cancer related to asbestos exposure was 119, but autopsy studies on 78 asbestosis patients showed that 21 were complicated by lung cancer. The incidence of mesothelioma was relatively low. Anyway, we have taken measures to reduce the use of asbestos. Asbestos has been completely banned for use in friction materials in the auto industry from October, 2003.

WS-E-11 presented by Hermano Castro
Workshop: Epidemiology and Public Health

Establishment of an Integrated Health Surveillance System of Workers for the Areas that Use Asbestos in Brazil

Hermano Castro

Coordinator Working team: Cyro Haddad Novello; Fernanda Giannasi; Vanda D'Acari; Maria Blandina Marques dos Santos; Kátia Reis de Souza.

Institutional Project: CESTE/ENSP/FIOCRUZ (Oswaldo Cruz Foundation),Brazil

[author could not attend]

Abstract

Introduction:

Occupational and environmental exposure to asbestos is associated with diseases such as: asbestosis, lung cancer, pleural mesothelioma and other pleural diseases. National surveys referring to work conditions and health repercussions have shown an increase of cases of illness related to asbestos. It is estimated that nowadays approximately 50,000 workers are being directly exposed to asbestos in Brazil.

According to Brazilian regulations, workers exposed to asbestos should be monitored by their companies for at least 30 years after the end of exposure to asbestos.

The construction of an environmental and epidemiological surveillance system was necessary to give visibility to the prevalence of these illnesses and to ascertain the number of people exposed to asbestos in Brazil, as well as their clinical, radiological and functional status. It is also intended to know the total amount of companies that have used asbestos in Brazil.

Objectives:

To set up an integrated system of health surveillance for workers exposed to asbestos in Brazil with the purpose of elucidating social, environmental and epidemiological aspects applicable to these workers, and seeking actions that would improve their quality of life.

Methods:

We used an on-line system tied in with the Health Ministry. The system holds personal exposure data and clinical information. A methodology for the inspection of working environments was devised which included participation by workers and the development of an educational process.

Results:

To date, five out of eleven States have started to enter in regional registers, details of asbestos-exposed workers. We have now registered the names of two thousand workers along with clinical and occupational information.

Conclusion:

The importance of understanding asbestos as a public health problem is emphasized. The prohibition of asbestos use should be followed by effective surveillance in order to minimize the residual environmental impact and to follow exposed workers' state of health.

The construction of a surveillance system will allow the Brazilian Health Ministry and the Unified Health System to attend to health and environmental problems arising from several asbestos production processes.

WS-E-12 presented by Xing Zhang
Workshop: Epidemiology and Public Health

Survey on the Mortality from Malignant Tumors of Female Asbestos Spinning Workers

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²*Cixi Municipal Center for Disease Control and Prevention, P.R.China*

³*Department of Hazard Assessment, National Institute of Industrial Health, Japan*

Abstract

Objective:

To investigate the mortality from malignant tumor of female workers involved with the manual spinning of asbestos.

Methods:

A retrospective cohort study on the causes of death was conducted.

Results:

It was found that a total of 144 persons died of cancer. The mortality from malignant tumor of the workers was 108.97 per hundred thousand people per year. Among the malignant tumors, lung cancer was placed in the top rank with mortality up to 56.00 per hundred thousand people per year. Compared with the control population of the same region, the SMR from total malignant tumor and lung cancer of workers was 1.16 ($P < 0.05$) and 4.17 ($P < 0.01$), respectively.

Conclusion:

A high incidence of lung cancer may also occur among female workers who are exposed to chrysotile.

Are the Asbestos Substitutes Hazardous as well?

Reza Gholamnia¹, S.B. Mortazavi², Hasan Asilian², Ali khavanin², Yahya Rasoulzadeh¹

¹*Uromia of Medical Science University, Uromie, Iran [not- attended, paper submission]*

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[paper submitted – author could not attend]

Abstract

Introduction

Due to the proven pathogenicity of asbestos, suitable alternatives to asbestos have been sought with like chemical properties but no, or lower, pathogenicity. Synthetic vitreous fibers are an important substitute for asbestos in a variety of products where thermal and acoustical is required. Due to numerous uses, it is important to monitor the exposure rate of workers and others who deal directly with production and handling of asbestos. Man-made fibers, like asbestos, may also cause health effects due to morphological fiber, microscopic appearance, application and large uses in industry. The aim of this study was determine occupational exposure to Rockwool fibers and survey respiratory symptoms such as cough, breathlessness, phlegm and wheezing, as well as respiratory capacity.

Material and Methods

The standard method for the determination of airborne fibrous particles in the workplace is NIOSH Method 7400 by Phase Contrast Microscopy. According to this method, samples are collected on 25-mm cellulose ester filters. The filter is treated to make it transparent and then is analyzed by microscopy at 400-450x magnification, with phase-contrast illumination, using a Walton-Beckett graticule. Using counting rules B, only fibers <3 µm in diameter and >5 µm in length with aspect ratios of 5:1 are counted. Pulmonary function tests were carried out by P.F.T spirometer to obtain VC and FVC values. Questionnaires on respiratory health were completed for case - control groups; administrative staff and production workers were selected as case and control groups respectively. The respiratory questionnaire was filled out by by members of both groups.

Results and Discussion

Sampling results showed different levels of exposure to fibre in the rock wool factory. The mean exposure, TWA 8 hours, and actual exposure were 0.51 and 0.7 fiber/cc, respectively. Occupational exposure did not exceed TLV-TWA (ACGIH); however due to overtime, occupational exposure was high and the T-Test revealed significantly different OEL (p = 0.001). While other tests showed some health effects of rock wool exposure, lung capacity and volume were not affected. The correlation test revealed that there is a significant correlation between smoking and respiratory signs such as phlegm (r = 0.29, P= 0.006), cough (r = 0.25, P = 0.02).

WS-E-14

Workshop: Epidemiology and Public Health



The Lombardy Mesothelioma Registry (Northern Italy): Results of Three Years of Surveillance

Mensi C.^{1,2}, Riboldi L.^{1,2}, Rivolta G.^{1,2}, Bachetti S.¹, Consonni D.¹,
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National Mesothelioma Registry*

[paper submitted – author could not attend]

Abstract

Introduction

The Lombardy Registry of Mesothelioma (LMR) started its activity in 2000 as a Regional Operating Centre (ROC) of the National Mesothelioma Registry, in application of a national law. The Registry collects all new cases of malignant mesothelioma (MM) of the pleura, peritoneum, pericardium and vaginal tunic of testis occurring in residents in Lombardy Region (Northern Italy) since 01/01/2000.

Objectives

To estimate the regional incidence of MM, to define the asbestos exposure, to identify the unknown contamination sources.

Methods

Every year about 300 suspected cases are actively reported by the selected departments (pathology, pneumology, surgery, oncology) of every hospital. For each case diagnosis is ascertained through examination of clinical records according to the National Registry Guidelines. For confirmed cases a standardized questionnaire is administered to the patient or his/her next-of-kin in order to verify possible asbestos exposure.

Results:

For the period 2000-2003, 697 cases were evaluated to date: the diagnosis was defined certain for 416 subjects (60%), probable for 78 (11%), possible for 40 (6%). For 160 subjects (23%) the diagnosis was not confirmed. For the 494 cases (338 M, 156F) of MM with high degree of clinical ascertainment (MM certain + probable), the median age was 68 years (range 35-96), and the most representative site (94% of cases) was the pleura. Occupational exposure to asbestos has been found for about 60% of the cases. The most important exposures were in the building trades, metal manufacture, machine production and maintenance. An unexpectedly high proportion of cases had been employed in non-asbestos-textile factories. The age-standardized incidence rates of pleural MM were 3.8/100.000 [CI 95%: 3.1-4.4] and 1.4/100.000 [CI 95%: 1.1-1.7], respectively for males and females.

Conclusion

Incidence rates of MM are among the highest in Italy. An unexpected elevated risk was found for non-asbestos-textile workers.

WS-E-15

Workshop: Epidemiology and Public Health

Use of Exposure Information and Nordic Incidence Data to Predict the Expected Decline in the Mesothelioma Incidence

Sverre Langard

Rikshospitalet University Hospital, Centre for Occupational and Environmental Medicine, Oslo, Norway

[paper not submitted – author could not attend]

Abstract

In Norway and neighbouring countries the use of asbestos for insulation was reduced to a minimum during the second half of the 1970s and the early 1980s. This decline in the use resulted to a great extent from comprehensive information to workers on the untoward effects to health of asbestos exposure. The information to workers was supported by introduction of personal protection when handling asbestos, as well as prohibition of use in the early 1980s

Depending on the duration of the development time for mesotheliomas, between first exposure to asbestos fibers and occurrence of the tumor, a declined incidence might be expected 20-45 years subsequent to interruption of asbestos exposure.

All the Nordic countries have cancer registers that contain information on all new cancer cases over the past 40-60 years. Hence, the mesothelioma incidence in these registers might be useful for observing the long-term outcome effects from interrupted exposure to asbestos among workers that took place about 25 years ago in Norway and other Nordic countries. About 25 years after interruption of asbestos exposure in Nordic countries, a decline in the incidence of mesothelioma seems to be lacking, and possible explanations for the lack of decline will be discussed. A prediction of the expected decline will be attempted.

WS-F-01 presented by John Flanagan
Workshop: Victims and Support Organizations

Victims Helping Victims

John Flanagan

Merseyside Asbestos Victims Support Group (MAVS), Liverpool, the U.K.



Abstract

Asbestos Victims Support Groups (AVSG) in the UK were formed by victims themselves and, in some cases, with help from Occupational Health organisations. Workers at these groups are often the first people a victim has contact with after diagnosis other than family members. In this paper we describe some of the work and campaigning activities of the Merseyside and Greater Manchester asbestos victims support groups. Issues such as the origin and structure of the groups are placed in regional context by the provision of background information on the history of asbestos use in the North of England. Strategies to overcome legal and bureaucratic inequities are described.

WS-F-02 presented by Michele Oilvia Hax Fite
Workshop: Victims and Support Organizations



The Psycho-Social Effects of Asbestos Disease on the Victim and the Family

Michele Oilvia Hax Fite
White Lung Association, the U.S.A.

Abstract

The psycho-social effects of asbestos disease on the victim and the victim's family echo the tragedy of asbestos exposure. Due to drastic cuts in health care in the United States, as well as, precarious benefits both through governmental and legal channels, asbestos victims are continually being emotionally and physically disenfranchised. The course of asbestos disease is difficult to chart. Victims' health and their ability to be functioning members of society and family life has a pendulum of highs and lows. The unpredictability of activities of daily living (ADL) functions creates a great deal of stress to the victims and their families. This stress exacerbates the physical and mental health problems caused by asbestos. Survival coping skills require a team approach; the basis of which is a victim's advocacy organization.

WS-F-03 presented by Kyla Sentes
Workshop: Victims and Support Organizations

The Year of Ban Asbestos Canada

Kyla Sentes

Ban Asbestos Canada (BAC), Canada



Abstract

2003 saw the creation of a new national organization dedicated to banning the production, use, and export of asbestos: Ban Asbestos Canada (BAC). While this represented a significant achievement for Canadian victims and activists, the road ahead is long. The political economy of asbestos in Canada is complex and the pro-asbestos lobby has entrenched itself at both the federal and provincial levels. As such, the strategies for BAC must address myriad issues in order to be effective: the regionalization of the asbestos industry in Canada; Quebec nationalism; divisions within the labour movement; disparities between provincial compensation systems; and the coordination of actions. However, despite these obstacles, response from the public at large has been overwhelmingly positive and momentum is high to achieve a global ban on asbestos.

WS-F-04

Workshop: Victims and Support Organizations

Medical vs. Medico Legal Diagnosis of Asbestos Disease in Western Australia

Gregory Deleuil

Medical Advisor, Asbestos Diseases Society of Australia, Australia [not-attended]

[paper not submitted – author could not attend]

ABSTRACT:

The clean-cut medical diagnosis of asbestos disease may become clouded when evaluated in a medical legal setting.

The Western Australian Workers Compensation Act is very specific in its requirements of compensable asbestos diseases i.e.: Mesothelioma, Lung Cancer and Asbestosis.

Pleural disease is not compensable under the act. However complex common law remedy is possible but unlikely to succeed.

This discussion will illustrate the problems faced by claimants with less than classical diseases in an adversarial system.

WS-F-05 presented by Raghunath Manavar
Workshop: Victims and Support Organizations

Struggle for Justice: Case study of Asbestos Victims in Gujarat, India

Raghunath Manavar¹, Mangabhai Patel²

¹*Occupational Health & Safety Association, India*

²*Victim Person (Asbestosis), India*

Abstract

This paper presents the struggle of the asbestos victims in India with special reference to the western state of Gujarat. It also highlights the story of victim Mangabhai, who is also participating in this conference. The report provides insights on how poor and unemployed persons are trapped into working in hazardous industries in India. This report will also focus on the struggle to get recognition for asbestos related sickness and the fight for compensation of the victims. The report will also highlight the problems of workers not getting the proper diagnosis and thus not getting any compensation. The report will also describe the efforts of our organisation, the Occupational Health and Safety Association (OSHA), to carry out studies on the prevalence of asbestos related diseases in other parts of India and our efforts to campaign for a complete ban on asbestos in India.

Mangabhai, who is suffering from asbestosis, worked in the boiler department of the Ahmedabad power plant since 1965. He was working as a casual worker in the plant and was classified as a permanent worker only in 1980. Mangabhai started to experience breathing problems in the early 1990s and soon it became very difficult for him to work. The company used to carry out medical check-ups for workers every 2-3 years, yet they found nothing wrong with him. At this juncture he came to me and explained his problems to me. I sought the advice of Dr S. H. Clarke, a retired OSH expert from the Industrial Toxicology Research Centre, India, who was working with the Consumer Education and Research Center (CERC). We identified 8 workers with the same problems and the CERC lawyer, the late Rani Advani, filed a petition in the Gujarat High Court. The court instructed the National Institute of Occupational Health, based in Ahmedabad, to examine the workers. Two of the workers died before they could be examined and two of them were diagnosed as suffering from asbestosis (including Mangabhai). Mangabhai has received only an interim compensation of 10,000 Rupees (US\$218) and is still waiting for the final judgment.

WS-F-06 presented by Munehiro Yasumoto
Workshop: Victims and Support Organizations



Activities of Victims and Supporting Organizations to tackle Pneumoconiosis and Asbestos-Related Diseases in Yokosuka

Munehiro Yasumoto

Yokosuka Pneumoconiosis (Asbestos) Victims' Group, Japan

Abstract

Cooperative efforts to tackle pneumoconiosis and asbestos-related diseases in Yokosuka began in May 1982, when an outbreak of asbestos-related lung cancer was reported among U.S. military base and shipbuilding industry workers by Dr. Miura of Yokosuka Kyosai Hospital.

A group of investigators from the Uraga branch of the All Japan Shipbuilding and Engineering Union (SEU), the Kanagawa Occupational Safety and Health Center, and the Kanagawa Workers' Medical Co-op Minatomachi Clinic soon conducted a follow-up survey to identify deceased victims and interviews to check out health damage among retired shipbuilding workers, with the cooperation of Uraga Retired Workers, a group of retired SEU Uraga Branch members. The group also offered retired workers health checkups and registered pneumoconiosis patients with the local Labour Bureau.

From November 1984, the group started to offer health checkup services for members of the Association of Uraga Retired Workers in cooperation with Minatomachi Clinic. This health checkup service was expanded later to include retired workers of the Yokosuka Naval Base, and was conducted every November until 1990. Through these efforts, the number of pneumoconiosis patients who won workers' compensation increased and the Yokosuka Pneumoconiosis (Asbestos) Victims group was set up in November 1985. In July 1988, eight retired workers of Sumitomo Heavy Industries filed a law suit against the company, demanding compensation for lung problems. In September 1989, the Kanagawa Workers' Medical Co-op opened a new clinic in Yokosuka to offer health checkups and health care services to local pneumoconiosis and asbestos-related disease patients.

The support system for pneumoconiosis disease victims was established in Yokosuka between 1982 and 1989. Because pneumoconiosis patients in Yokosuka were mostly shipyard workers, we have always been faced with asbestos problems. As a result, Yokosuka has also been a place to send messages about asbestos issues to people all over the country.

WS-F-07 presented by Shigeji Tsukahara
Workshop: Victims and Support Organizations



Activities of the Victims' Group in Nagasaki Area

Shigeji Tsukahara

Mitsubishi-Nagasaki Pneumoconiosis Patients Association, Japan

Abstract

The Mitsubishi-Nagasaki Pneumoconiosis Patients Association was established in 1983. Since then, the association has been involved in a variety of activities on behalf of victims.

The association is composed of workers, retirees and subcontracted workers. The current membership is more than 100, while the initial membership was approximately 20.

Some members of the Association filed damage suits against their employer, Mitsubishi Heavy Industries, Ltd. The first litigation was settled with reconciliation three years and five months after it was brought to the court. The second one filed in the Nagasaki District Court is now pending. The Patients Association is the core of the plaintiffs in those litigations.

In both cases, many asbestos bodies were identified in the organs of the plaintiffs. A number of members are dying from lung cancer; among them, some of the victims, whose pneumoconioses were initially registered as Grade 2 (lowest grade) under the pneumoconiosis law, were approved after asbestos was identified by X-rays and/or autopsies. Other members' applications were also acknowledged as a result of the efforts of the supporting physicians and medical institutions that found asbestos-induced lung cancers at their independent medical checkups. The fatal diseases were misdiagnosed at the regulatory medical checkup carried out by pro-corporation doctors.

The Association has been working in close collaboration with the Mitsubishi Nagasaki Shipyard Branch of the All Japan Shipbuilding and Engineering Union.

Displaying strong solidarity, the Association and the branch have urged the employer to pay compensation to the victims, to improve dust control measures at workplaces, questioning their poor policy on prevention of pneumoconiosis. For one thing, they researched the past use of asbestos in the shipyards and conducted questionnaire surveys on the victims' awareness about their experiences of handling asbestos.

Certainly, the compensation helped victims to gain some relief, but their lives were lost and the beloved fathers or husbands would never come back again. Their grief is never compensated.

Many pneumoconiosis victims and other asbestos victims are left unable to obtain workers' compensation or take legal action; they just wait for support. I hope that this international conference will enhance our energy to act on the basis of an accurate recognition of the situation we are facing now.

WS-F-08 presented by Fernanda Giannasi
Workshop: Victims and Support Organizations

The Brazilian Asbestos Mafia Counterattacks: the Last Battle

Fernanda Giannasi

Brazilian Association of Asbestos Victims (ABREA), Brazil

Abstract

A ground-breaking Brazilian court ruling in 2004, worth approximately \$160 million to thousands of asbestos victims, sparked retaliation by chrysotile (white asbestos) stakeholders in Brazil. More than \$1 million was spent on spreading pro-asbestos propaganda in the Brazilian media. Objections by ABREA, the association representing Brazilian asbestos victims, to the falsehoods being spread by the campaign were upheld by the Brazilian Propaganda Regulation Council which banned further industry action.

WS-G-01 presented by Takehiko Murayama
Workshop: Multinational Enterprises and Overseas Transfer



Overseas Presence of Japanese Asbestos-Related Enterprises

Takehiko Murayama

Division of Multidisciplinary Studies, School of Science and Engineering, Waseda University, Japan

Abstract

For developing countries, asbestos is a 'precious' material for building construction and product manufacturing. Therefore, those countries may repeat almost the same experiences as advanced countries, and suffer severe damage induced by asbestos contamination. Unfortunately, not a few problems including Minamata disease and arsenic pollution have happened in developing countries. Although some people say that the quality of environmental protection increases as stages of economic growth advance, asbestos use in developing countries must be strictly regulated at an earlier stage.

In fact, world trade statistics show that asbestos imports have been increasing in Thailand, India, and China, whereas those of Japan and Korea have been rapidly decreasing. In addition, importation of asbestos into Vietnam is also gradually rising. In accordance with such trends in asbestos imports, exports of asbestos cement production of Thailand, China, and Malaysia have been rapidly increasing. Taking those tendencies into account, people could suppose that the Asian region has been constructing an economic structure in which the region imports asbestos, and then exports it again in the form of various products after manufacturing. In such a process, we have to inquire whether protection measures for occupational and residential environments have been appropriately installed.

Some Japanese companies have transferred their production activities to Asian countries. As to the reasons why they go to such countries, the following two points should be noted. Like many industries, one is to expand their business into new markets. It is very easy to reduce production costs in this region because labor is cheaper than in Japan. Another reason comes from the situation that production activities in Asian countries are easier than in Japan, because environmental regulations in those countries are less strict than in Japan. Accessible documents indicate that the number of facilities which Japanese companies invest in and/or operate is increasing.

In view of the above-mentioned situations, we have to monitor the trend of asbestos use and related production activities as well as environmental protection in Asian countries.

WS-G-02 presented by Barry Castleman
Workshop: Multinational Enterprises and Overseas Transfer

Global Phase-Out of Asbestos Products

Barry Castleman

Environmental Consultant, the U.S.A.



Abstract

With national efforts to regulate asbestos hazards in Europe and North America in the 1970s, there appeared a disparity in protective measures between like plants owned by the same multinational companies in different parts of the world. Asbestos firms were charged with exporting hazards and having "double standards" in health, safety, and environmental protection. At that time, the asbestos industry was at its peak, and annual global asbestos use exceeded 5,000,000 metric tons. The industry was dominated by multinational firms with asbestos mines and asbestos manufacturing plants around the world. With increasing public awareness and concern, regulation, and liabilities for compensating asbestos victims, the big asbestos companies were forced to develop alternative products, and some were bankrupted. But even today there have been double standards concerns raised in other industries where asbestos products are used, such as the automobile industry. Efforts by global corporations to eliminate asbestos use and develop codes of practice for the control of hazards from in-place asbestos construction materials, as well as NGOs' efforts to examine the conduct of global corporations will be discussed.

WS-G-03 presented by Annie Thébaud-Mony
Workshop: Multinational Enterprises and Overseas Transfer



A Multinational Corporation against the Workers: Saint Gobain Strategies in France and Brazil

Annie Thébaud-Mony

Director of Research, Institut National de la Santé et de la Recherche Médicale (INSERM), France

Abstract

Asbestos mining never represented more than 20% of the total asbestos consumption in France. Mining shut down in 1952 in the Queyras (Meyries mine) and in 1962 in Corse (Corse Cape mine). From 1962 to 1997, at which time asbestos was banned in France, all asbestos was imported from Quebec, Russia and South Africa. The asbestos industry in France has been dominated by two multinational firms: Saint Gobain (in particular the Everite branch) and Eternit (the Belgian group, currently named Etex). In France, Saint Gobain specialized in sprayed asbestos for insulation through its subsidiary Wanner Isofi. Another Saint Gobain subsidiary – Everite – and Eternit-Belgium were the two main operators in the asbestos cement market.

Saint Gobain in cooperation with Eternit-Switzerland became the third asbestos producer in the world through their Brazilian mining interests. Since the 1960s the Saint Gobain & Eternit subsidiary, SAMA, has been exploiting the Brazilian mine in Goiás, even though asbestos has been banned in France since 1997. The asbestos-cement market in Brazil has been dominated by Brasilit, the Brazilian subsidiary of Saint Gobain, and Eternit-Switzerland.

Saint Gobain's managers were completely aware of the asbestos health effects when they began asbestos mining in Brazil. But the firm applied constantly a strategy of double standards.

The paper will compare the strategies of the firm in the two countries in relation to three main aspects: the control of the asbestos market, the control of the information about the health effects of asbestos, the reaction to the collective action of the victims claiming justice.

WS-G-04 presented by Bob Ruers

Workshop: Multinational Enterprises and Overseas Transfer

The International Asbestos Cartel

Bob Ruers

Former Dutch Senator, founding member of Dutch Asbestos Committee and Solicitor, the Netherlands

Abstract

The story began in 1900 when Hatschek, an Austrian entrepreneur, developed a technique for the manufacture of asbestos cement, which he called 'Eternit'. Within three years, to be precise in 1903, he had sold the patent on Eternit to companies in countries such as France, Italy and Switzerland. Many companies in many other countries were soon to follow. By 1950, over 200 asbestos cement factories across the world were producing asbestos cement according to the Hatschek principle.

In 1920, a Swiss entrepreneur, called Ernst Schmidheiny, took over the Swiss Eternit factory. Schmidheiny, who was already actively involved in the Swiss cement industry, extended his work sphere to the Belgian cement industry and entered into cooperation with the Eternit factory owned by the Belgian Emsems family.

It was in 1928 that Schmidheiny founded the German Eternit Company in partnership with other European Eternit companies and the American Johns-Manville company. One year after that, he set up the International Asbestos cement company "SAIAC". The aims of these cooperating asbestos cement companies from all over the world were spread out over a vast spectrum of activities: they interchanged experiences and ideas for propaganda, exchanged patents and jointly purchased raw materials. In addition, SAIAC engaged in the exchange of technical knowledge, in shared research, the establishment of new companies in the so-called 'neutral countries', the organisation of export and in reciprocally assuring that raw materials were available. Moreover, those companies involved with SAIAC entered into price and market agreements. In addition to the European Eternit companies, the English asbestos companies Turner & Newall and Cape and the American Johns-Manville company also acceded to SAIAC. In their 1929 annual report, Turner & Newall approvingly referred to SAIAC as "the miniature League of Nations".

In 1969 the Belgian Eternit Company, in cooperation with Johns-Manville and Turner & Newall, founded a new enterprise called TEAM in Luxembourg. Its objective was "to coordinate new asbestos cement companies across the entire globe". TEAM got involved in, to name but a few, Pakistan, Indonesia, Japan, China, Nigeria and Senegal. At first, the Belgian Eternit Company possessed only 8 % percent of the shares in the Luxembourg-based company, but this percentage kept increasing right until 1989, by which time the Belgian Eternit Company held 86 % of the shares. It was also in 1989 that the Belgian Eternit Company bought 50 % of the shares in Everest Industry Ltd. from Turner & Newall, which was India's largest asbestos cement producer. By doing so, the Belgian Eternit Company had become the largest asbestos cement producer in the world.

Asbestos and Shipyards

Claudio Bianchi and Tommaso Bianchi

Center for the Study of Environmental Cancer - Italian League against Cancer, Italy.

Abstract

1) Exposure to various types of asbestos has occurred in shipyards since the last two decades of the 19th century. In the 20th century the problem became severe, particularly in some countries with high shipbuilding activity. During the first half of the century, the UK was by far the most important producer, with the US having intense naval production during the two World Wars. The second half of the century was marked by the enormous rise of shipbuilding activity in Japan, and later in South Korea. Apart from the major producers, various countries, especially in Europe, showed important shipbuilding activity.

2) The features of asbestos exposure in shipyards may be reconstructed on the basis of studies conducted at necropsy. All people working in shipyards were involved. The intensity of exposure varied widely. In studies performed in the shipyard area of Monfalcone, Italy, pleural plaques were observed among shipyard workers in 80-90% of the cases. Plaques varied in size with 21.2% being small, 33.1% being moderate, and 32.4% large. Asbestos bodies were visible on routine lung sections in 35% of the cases. Isolation of asbestos bodies after chemical digestion of the lung showed burdens higher than 1,000/gram of dried tissue in 78.6% of the cases, and higher than 10,000/gram in 49.1%. Both chrysotile and amphiboles were detected in lungs, lymph nodes, and pleura from shipyard workers.

3) The geography of malignant mesothelioma reflects exactly the shipbuilding activity. The highest mesothelioma incidences have been reported from shipyard areas. For some decades exposure to asbestos has been stopped or reduced in the shipyards of various countries. However, exposure to different types of asbestos, including crocidolite, continued in many shipyards until a few years ago. This suggests that, among shipyard workers, a high mesothelioma incidence will be observed in the next decades too.

WS-H-02 presented by James Fite
Workshop: Asbestos and Shipyards



U.S. Shipyards: A History of Massive Asbestos Exposure and Disease

James Fite
White Lung Association (WLA), the U.S.A.

Abstract

The United States was once one of the world's leading centers for ocean vessel construction. Over twenty major yards employed millions of workers from the 1920s to the 1980s. This construction utilized primarily two substances, steel and asbestos.

Although the shipyards were one of the most supervised and accounted for industrial operations, due to the huge government subsidies from wartime and defense spending, asbestos exposure proved deadly to large sections of the workers. The author will evaluate the human cost arising from this asbestos exposure and suggest methods to prevent future toxic exposure in ship construction.

WS-H-03 presented by Andy White
Workshop: Asbestos and Shipyards



Problems Faced by shipbuilding communities

Councillor Andy White¹ and Tommy Gorman²

¹*Leader, West Dunbartonshire Council*

²*WRRU, West Dunbartonshire Council*

Abstract

This paper will examine asbestos-induced problems faced by shipbuilding communities. It will also discuss the value of a multi-agency approach and raise the question of wider collaboration on asbestos matters. Joint working and shared experience across these affected groupings at several levels could be helpful in a number of key areas. It is hoped that this discussion may lead us closer to the long-term strategy which is required for effectively dealing with the international asbestos epidemic as it affects shipyard communities. High values are placed on protecting the local environment, community safety and support for asbestos victims, their families and carers. This requires political intervention at the highest level and the support of a number of major international agencies.

WS-H-04 presented by Naohiko Inase
Workshop: Asbestos and Shipyards



Pleural Mesothelioma in Shipyard Workers in the Miura Peninsula

Naohiko Inase and Hirotaro Miura
Yokosuka Kyosai Hospital, Japan.

Abstract

Introduction:

Most patients with mesothelioma have a long-term history of occupational exposure to asbestos. Yokosuka in the Miura Peninsula has been known as 'a town of shipyards' for more than 100 years and also known to have high incidence of mesothelioma.

Rationale:

To clarify the incidence of shipyard-exposure to asbestos in our patients with pleural mesothelioma and characterize the exposure, we reviewed our medical records.

Patients:

We have managed 38 patients with pleural mesothelioma (31 men and 7 women; from 30 to 86 years old) between 1991 and 2003. Pathologically, 24 patients with epithelial type, 8 patients with biphasic type, and 6 patients with sarcomatous type were included.

Results:

With regard to asbestos exposure, 34 patients had occupational exposure and 2 female patients, whose husbands were shipyard workers, had para-occupational domestic exposure; however, exposure of the last 2 was undetermined. Among 34 patients with occupational exposure, 27 patients (79%) worked in shipyards, 4 patients (12%) were involved in the building industry, and 3 patients (9%) were mechanics. In the 27 shipyard workers, the latent period from the first exposure to asbestos to onset of mesothelioma was 24-70 (mean was 46) years, which was longer than that in builders (mean was 32 years) and in mechanics (mean was 34 years). The duration of asbestos exposure was 6-43 (mean was 26) years in the shipyard workers.

Conclusion:

The latent period of pleural mesothelioma in shipyard workers tends to be longer than in other occupationally exposed patients.

WS-H-05 presented by Meiro Haruta
Workshop: Asbestos and Shipyards



Findings of Chest X-rays and Asbestos-Related Diseases among Workers of a Shipyard

Meiro Haruta and Yuji Natori
Yokosuka Chuo Clinic, Japan

Abstract

Among the findings on chest X-rays of 519 male retirees of a shipyard who consulted our clinic during fourteen years, small granular opacities corresponding to category 1-3 were found in 66 men (12.7%), and small irregular opacities corresponding to category 1-3 were found in 496 men (95.6%) including almost all job categories in the shipyard. Pleural changes due to asbestos exposure were found in 320 men (61.7%). Irregular opacities are still seen now in new patients coming to our clinic after the investigated period.

On the other hand, 118 men (22.7%) were certified as suffering from pneumoconiosis, 42 men (8.1%) were compensated for complications or classification Grade 4. Finally 21 men (4.0%) died from lung cancer, pleural mesothelioma or respiratory failure.

WS-H-06 presented by Michitaka Hayashi
Workshop: Asbestos and Shipyards

Collaborative Action to Obtain Justice for Victims in the Yokosuka Area

Michitaka Hayashi

Secretary General, Pneumoconiosis and Asbestos Victims' Relief Fund, Japan

Abstract

The relief activities for asbestos victims in Yokosuka started from the exclusive story carried on the front page of the YOMIURI newspaper on May 8, 1982. A survey by Dr. Miura and his medical team at the Yokosuka Kyosai Hospital, revealed that one-third of the 39 lung cancer deaths in the past 5 years had been due to occupational exposure to asbestos at the Naval Shipyards.

Since autumn 1982, the Uraga branch of the All Japan Shipbuilding and Engineering Union (SEU Oppama/Uraga Branch), the Kanagawa Occupational Safety and Health Center (KOSHC) and the Minatomachi Clinic of Kanagawa Workers' Medical Cooperative have been assisting victims. These groups have been working with the Uraga Retired Workers' Association, a body founded by former workers of the Sumitomo Heavy Industry Uraga shipyard. Voluntary medical examinations have been offered; the results of which have enabled victims to obtain compensation for their asbestos injuries. Medical examinations of former U.S. Navy Yokosuka Base workers have been carried out since 1984. In Nov. 1985, the Yokosuka Pneumoconiosis and Asbestos Victims Group was established.

In 1986, when a big repair job on the aircraft carrier MIDWAY was carried out at the U.S. Navy Yokosuka Base, a large amount of asbestos waste was removed from the ship and illegally disposed of; this situation was disclosed by KOSHC. The dumping of this hazardous material created great public concern, and raised awareness of the asbestos issue among Japanese people.

In July 1988, eight former shipyard workers with asbestosis sued their employer, the Sumitomo Heavy Industries Co. Ltd. The case was settled in March 1997, with the company admitting its responsibility. At the same time, the SEU Oppama/Uraga Branch reached an agreement with the company for additional (extra) pneumoconiosis compensation for all retired workers. In the same year, all the groups and teams which had been supporting the cases decided to continue their activities, so they established the Pneumoconiosis and Asbestos Victims' Relief Fund. The organization set up a "Pneumoconiosis and Asbestos Hazard Hotline" as one of its activities in an attempt to locate pneumoconiosis and asbestos victims. The hotline received more calls than expected; between 1997 and 2004, there were 500 calls. It was clear that there were still many asbestos victims whom we had not reached. The hotline became an annual feature and telephone consultations are offered for three days every July.

In July 1999, 12 former U.S. Naval Shipyard Repair Facility's workers and 4 bereaved families in Yokosuka sued the central government under the law concerning the U.S.–Japan Security Treaty. 22 former workers instigated another law suit in May, 2002. Five former workers and 10 bereaved families filed the third law suit in July, 2003.

The District Court Yokosuka branch reached a landmark decision on October 7, 2002 for the first

case. The court ordered the Government to pay a total of 231 million yen to the 17 plaintiffs (including 12 patients), saying it would not be fair if the Government is exempted from having to pay compensation because the right to claim compensation had expired due to the statute of limitation for 5 (3 patients) of the plaintiffs. Unfortunately, the Tokyo High Court overturned the lower court ruling in May, 2003. When the Supreme Court dismissed the victims' appeal, the decision was final. As for the second legal action, settlement negotiations are underway.

Since the SEU Oppama/Uruga Branch reached a labor-management agreement with Sumitomo Heavy Industries for compensation in 1997, the SEU has been helping victims to apply for it from the company. But the company has displayed insincerity. As a result, in July, 2003, 11 former workers and 3 bereaved families of pneumoconiosis victims filed the case as a secondary action. While the work of asbestos support groups in Yokosuka has progressed, much remains to be done.

During July, 2004, the hotline received 100 calls from other such industrial areas in Kanagawa Prefecture.