

ASBESTOS-RELATED DISEASE IN INDIA

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Although mesothelioma and asbestos-related lung cancer are recognized around the world, in India neither one of these diseases is commonly reported. This is not surprising as in India, cancer is not a notifiable disease. While there are some regional cancer registries, poor data collection and inadequate death certificate registration combined with other factors result in a spectacular underestimate of asbestos-related cancer. According to data from regional cancer registries in India, between the years of 1993-1997 there were a total of 56 mesotheliomas.

Mesothelioma Incidence in India (1993-1997)

Region	Number of Mesotheliomas*
Delhi (1993-1996)	7
Bangalore	7
Madras	7
Karunagappally	0
Mumbai	33
Nagpur	0
Poona	2
Trivandrum	0
Total	56

The fact that the Ministry of Labour does not collect data on morbidity or mortality for occupational diseases further compounds the information vacuum. Considering that asbestos was widely used in India with few, if any, restrictions, and considering that life expectancy is now 55-60 in rural areas and 65-70 in urban areas, there can be no doubt that the incidence as documented above does not reflect the reality of the country's mesothelioma incidence.

Diagnosis and treatment of asbestos-related diseases in rural regions, which constitute about 70% of India, are inadequate. When workers return to their villages due to illness or after retirement, they have no access to post-employment follow-ups or medical care for asbestos-related diseases. General practitioners and even some specialists outside medical institutes misdiagnose occupational diseases including those caused by asbestos due to lack of medical training.

Poor people with asbestos-related diseases are marginally better off in urban areas where they can obtain access to medical care at civic, government or charity hospitals; some are referred to specialist medical centers for treatment however, the quality of the care with respect to poorly understood asbestos-related diseases is variable. As elsewhere, private patients, of course, receive a higher standard of care. It is routine for autopsies to be carried out on private patients who die from an asbestos-related disease for medico-legal purposes.

At our institute, the King Edward Memorial (KEM) Hospital in Mumbai, we have seen one case each of mesothelioma, lung cancer and bilateral pleural effusion in asbestos-exposed workers. We have access to good equipment and are able to do detailed medical investigations of patients

including chest CT scans, arterial blood gases at rest and exercise, bronchial lavage for asbestos bodies and biopsies. Numerous cases of asbestosis have been diagnosed by staff in the respiratory medicine department at the KEM Hospital. In the early 1980s, we studied chest radiographs of 800+ workers from the asbestos-cement industry; 28% were found to have asbestosis and a further 8% showed signs of early lung changes. Subsequently, we assessed radiographs of workers at two brake lining factories – in Mumbai and Ahmedabad; similar frequencies of the disease were found. In 2003-4, I studied chest radiographs taken in various asbestos-cement plants and asbestos mines; the results are tabulated below.

Asbestosis Incidence in India (2003-2004)

State	Number Examined	Number with Asbestosis	% with Asbestosis
Tamil Nadu	140	31	22
Rajasthan (1)	49	24	49
Rajasthan (2)	111	86	77
Gujarat	108	48	44
Total	408	189	

The prevalence of asbestosis depended on the type and degree of asbestos exposure experienced. We have seen lung fibrosis even after one year of exposure. Other medical centers that have examined patients with suspected asbestos-related diseases include: the National Occupational Health Institute in Ahmedabad, the Industrial Toxicology Research Centre in Lucknow and the Central Labour Institute in Mumbai.

In my experience, pressure on doctors from industry executives or central government to water down the prevalence of occupational ailments or misdiagnose asbestos-related disease as tuberculosis or bronchitis is common. Once a patient has been diagnosed with an occupationally-caused asbestos-related disease, they can attempt to obtain compensation for their illness. Unfortunately, this process is cumbersome and complex and the number of successful claimants is small. While I personally have no knowledge of individuals receiving compensation for asbestos-related diseases, I have heard anecdotal reports that some claimants have received small amounts of compensation from insurance panels.

Conclusion

There is underreporting in India of asbestos-related conditions such as mesothelioma, lung cancer and asbestosis; our research has shown that the incidence of asbestosis in mines and factories is high. Public statements by asbestos processors such as manufacturers of asbestos-cement roofing and asbestos-containing brake linings that with modern asbestos processing methods there is hardly any hazardous occupational exposure are no guarantees of safety. The high incidence of disease in workers from asbestos-cement roofing plants underlines the need to replace asbestos cement sheeting, the "poor man's roofing choice," with a safer alternative.

* Data from *Cancer Incidence in Five Continents Volume VIII*, Edited by DM Parkin, SL Whelan et al. International Agency for Research on Cancer 2002; data from Mumbai reported by Dr. S. Kamat.