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Editors

Asbestos Disaster

Lessons from Japan's Experience

Springer

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Chapter 3
Why Did the Asbestos Disaster Spread?

Takehiko Murayama and Yuji Natori

3.1 Introduction

After a historical review of the asbestos issue in Japan, we have listed the following four points as factors through which the asbestos disaster was spread in Japan: the social application of medical knowledge, the activities of governments and industries, the economic advantage of asbestos products in the short term, and a knowledge gap among stakeholders.

3.2 Insufficient Application of Current Medical Knowledge of the Toxicity of Asbestos to Public Policies

3.2.1 Prewar

Medical knowledge about asbestosis in foreign countries was introduced to Japan in the early 1930s. After the first international conference on silicosis, held in Johannesburg, South Africa, in 1930 by the League of Nations (ILO 1930), a Japanese government official published a paper in 1931 which reported the conclusion of that conference that asbestos dust definitely induces pneumoconiosis (Ohnishi 1931). In 1932, the International Labour Organization (ILO) published a list of studies on pneumoconiosis which included 70 papers on asbestosis (ILO 1932). As one branch of the ILO was located in Tokyo at that time, it was presumed that the government and related medical experts could easily get updated information

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on asbestosis from this source. In the late 1930s, this led to the first survey of asbestosis among workers in asbestos factories in the Sennan district of Osaka Prefecture (Sukegawa et al. 1940).

In addition, government officials would share the information about asbestosis through military activity with foreign countries because asbestos use for military purposes was just beginning. For instance, in 1936, Germany, with which Japan had formed an alliance, brought out an order that added asbestosis to the list of occupational diseases to be compensated (Selge 1942:131–135). Germany also included lung cancer with asbestosis for workers compensation in 1943 (Castleman 2005:45).

While several facts suggest that the Japanese government had considerable knowledge of the toxic aspects of asbestos, it did not instigate any public policies for reducing asbestos risk in wartime. It was not until the postwar period that substantial measures against asbestos pollution were implemented.

3.2.2 Postwar

After the war, a International Cancer Congress and an International Congress on Occupational Health were held every 3 years, which Japanese experts continuously attended. These conferences provided updated information to Japanese academicians, government officials in embassies in foreign countries, and business workers. In addition, the annual reports of a national institute for occupational health show that members frequently visited foreign countries in the 1950s, and would have shared the current knowledge about advanced research into asbestos pollution. At the beginning of the 1950s, one of the medical experts, who was a member of a national institute, reported that asbestos was a carcinogenic material (Suzuki 1951).

In particular, it would have been important that Japanese experts were involved in conferences such as the seventh Saranac Symposium in 1952, the International Conference on Pneumoconiosis in Johannesburg in 1959, and the first International Conference on the Biological Effects of Asbestos in 1964, which was held by the New York Academy of Science. Related documents published during the late 1950s and 1960s suggest that medical experts recognized that asbestos was one of the causes of lung cancer. In fact, a research report which was published in 1960 by the Ministry of Labor described a case of lung cancer with asbestosis (Ministry of Labor 1960:72–75).

It is believed that two international conferences held in Tokyo during the late 1960s accelerated knowledge about asbestos pollution among medical experts and government officials. At the ninth International Cancer Congress in 1966, American experts reported on mesothelioma victims whose illness had been induced by environmental pollution around asbestos factories (Ninth International Cancer Congress 1966). As the mass media also paid attention to this conference, the information would have been known to the public. Just after the conference, members of a Japanese academic society on occupational health invited famous foreign participants to an informal meeting (Japanese Society for Occupational Health 1967: 11, 36–37). At this meeting, Dr. Wilhelm Heuper, a team leader on environmental

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cancer at the National Cancer Institute (NCI), introduced the carcinogenic aspects of asbestos based on case studies of mesothelioma. As leading experts, including the president of the society, attended the meeting, it would suggest that updated information on the toxicity of asbestos was shared among members of the society.

The 16th International Conference on Occupational Health in 1969 arranged a special session on asbestos pollution, which was not included in the original plan (Japan Industrial Safety Association 1971). Dr. Ian Webster, a participant from South Africa, reported data on mesothelioma victims not only among mine workers, but also among local residents around mines and factories. Dr. Tatsuo Sano, a member of the Institute for the Science of Labor, was the chair of this session, and mentioned in the concluding remarks that Japan should encourage research into mesothelioma. While information on asbestos toxicity was shared through related documents and conferences in both prewar and postwar periods, specific measures against the risks of asbestos were only begun in the 1970s.

3.3 Commitments of Governments and Industries

3.3.1 Prewar

Several facts indicate that Japanese governments initiated and encouraged the asbestos industry for military use. Nippon Asbestos was founded for the first time in 1896 after a request by the Japan Naval Authority (NICHIAS Corporation 1996:5–6). The demand for ground transport by the Japan Army Authority was a main cause of the foundation of Akebono Brake, which produced brake linings using asbestos (Akebono Brake Corporation 1969). The Ministry of Planning also requested Chichibu Cement to produce asbestos cement pipes (Chichibu Cement 1974). The standardization of asbestos products for railways, the military, and water companies encouraged the development of the asbestos industry. In wartime, Japanese asbestos companies expanded their factories to East Asia, which was under Japanese rule at that time. The factories located in China, Korea, and Taiwan would affect the health of workers and local residents.

3.3.2 Postwar

After the war, the import of asbestos was controlled by the Japanese government. The asbestos industry had to change their products from military to civil use at that time. As many companies were small or medium enterprises, the government encouraged the development of these companies and protected them from the pressure of foreign affiliated companies. Administrative guidance through the standardization of asbestos products would prove to be a substantial influence in spreading asbestos use, although it was not a legal matter. For instance, the standardization of asbestos cement pipes

played an important role in their rapid diffusion, because local governments were the main customers and were recommended to use these products.

At that time, it was the Ministry of Labor and the National Institute of Occupational Health that obtained information about asbestos toxicity. An official who was the chief of the occupational health section in the early 1950s published a survey report on asbestosis for the first time in 1930s (Ishidate et al. 1938), and visited the Saranac Laboratory in New York State, USA, in 1951, which was a famous facility for pneumoconiosis research (Ishidate 1951). Another official reported the outline of an international conference on pneumoconiosis which covered asbestosis and the relation between asbestos and lung cancer (Oikawa 1950). Although it is not hard to imagine that they had substantial knowledge about asbestos toxicity through academic documents and their experiences in foreign countries, practical administrative measures against asbestos pollution were not developed.

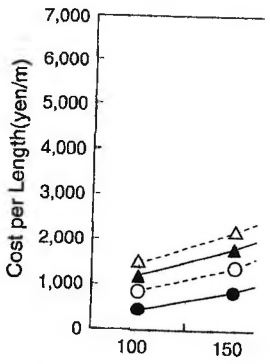
A monthly journal supervised by the occupational health section of the Ministry of Labor began publication in the 1960s. An article in this journal covered a report from the committee on the chemical industry and labor of the ILO which stated that asbestosis caused lung cancer (Ministry of Labor 1963). Another article reported a round-table talk on occupational health in which the chief of the occupational health section mentioned that several cases of lung cancer with asbestos exposure had been found in the Osaka area (Japan Industrial Safety and Health Association 1970). All this suggests that government officials had knowledge of the carcinogenic aspects of asbestos in the 1960s at the latest. and were aware of domestic cases of lung cancer in the late 1960s.

In addition to the above-mentioned activities of the national government, Japanese asbestos industries also developed a close relationship with foreign companies. Several articles in a journal of the Japan Asbestos Association noted that many Japanese workers visited foreign companies, and executives of foreign companies also visited Japan. In addition, some companies made agreements for technical cooperation. It must be supposed that Japanese companies obtained information about asbestos toxicity as well as knowledge on technical aspects (Watanabe 1967:13–14, and Watanabe 1971:3). In particular, presidents and other executives in foreign companies visited Japan every year in the late 1960s and early 1970s. This was probably because foreign companies were looking for new markets in response to gradually enforced regulations in Western countries. While the senior members of companies might realize the toxicity of asbestos, other workers were not informed of the situation.

3.4 Cost of Asbestos Products

Another reason why asbestos products spread in Japan was their low cost. We examined this point for three cases: high pressure pipes for water supplies, ceiling products, and roofing sheet for buildings.

Until the 1940s, iron pipes were mainly used for water supplies, and then asbestos cement pipes gradually spread during the 1950s and 1970s. Figure 3.1 shows



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