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New Cancer Cause Puzzle to Doctors

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Washington Post

WASHINGTON — A fatal cancer of the chest and abdominal cavities is cropping up among the nation's asbestos workers.

So rare that 20 years ago it wasn't even in the medical textbooks. The cancer is called Mesothelioma, and seems almost peculiar to people exposed to asbestos.

Ironically, those stricken with the deadly disease include a nurse whose father worked in an asbestos plant and a man who handled asbestos for no more than a month while he insulated the plumbing in his own house.

Mesothelioma was first spotlighted in 1960, when South African doctor found 32 cases among the people living and working in the Cape of Good Hope asbestos fields. Alerted to the problem, this same doctor turned up 57 more cases in the next two years.

Nobody knows how many Americans have had Mesothelioma. Even today doctors have trouble spotting it — whether they're trying to diagnose it in a person still alive or pin it down at an autopsy.

In three separate studies in the last three years, doctors in three states have turned up 71 cases. Oddly, 11 of them appeared to have had no real exposure to asbestos. The other 60 could all be traced to asbestos contact, either because they worked with it, lived with people who did or lived in neighborhoods where the air was heavily laden with asbestos dust.

The first American study was one run in 1964 by Dr. Irving J. Selikoff of New York's Mount Sinai Hospital, who began the study to see if cancer in any way affected the lives of the asbestos insulation workers in the New York Metropolitan area.

Tracing the lives of 632 members of the asbestos workers union who were on the union rolls before Jan. 1, 1943, Dr. Selikoff found that 255 of them had died by Jan. 1, 1963.

Some of what he found did not surprise him — that 12 of the 255 died of asbestosis, a long-known but decreasingly fatal (due to antibiotics) disease brought on by years of breathing asbestos dust.

Dr. Selikoff also found that 45 of the mean had died of lung cancer, a rate 6.6 times higher than that in the normal adult male population. Even more surprising, he found five deaths due to Mesothelioma. "This incidence of more than 1 percent," said Dr. Selikoff, "is strikingly high for a tumor which is generally considered to be extremely rare."

Dr. Selikoff then launched a follow-on study of 307 consecutive deaths among asbestos insulation workers throughout the whole Northeast. Again, to his surprise, he turned up 10 deaths due to Mesothelioma.

About the same time, the Pennsylvania State Department of Health began a blind study to find how Mesothelioma might be affecting the more than 5000 asbestos workers scattered about the state.

To 162 hospitals in the Southeastern part of the state they sent a questionnaire, asking the hospitals to report all Mesotheliomas diagnosed between 1958 and 1963.

Back came 42 documented cases of the disease, only 11 of which could not be traced to asbestos exposure.

Ten victims of the disease turned out to be men who worked in asbestos plants. Eight were people who lived near asbestos plants most of their lives. Three were members of families who had one or more asbestos worker members — a three-year-old girl whose father was an asbestos engineer, a nurse whose father had worked for 35 years in an asbestos plant and a woman with two sons who worked as asbestos insulators in a shipyard.

Of 10 deaths which seemed "questionable" asbestos exposures, two turned out to be almost bizarre. One was a Swiss cheesemaker, who worked almost his entire life around a large boiler covered with Asbestos insulation that flaked off at the touch. Another was a worker in a brewery, where it turned out that beer is filtered through pulp filters made essentially of cotton fiber and asbestos.

The most convincing study is the most recent one — conducted by a team of Middlesex General Hospital in New Brunswick, N.J., a few miles from the nation's largest asbestos plant, one that employs 5000 workers.

In the past three years, no fewer than 19 cases of Mesothelioma passed through Middlesex General. Only two of the 19 were not workers at the nearby asbestos plant, one a woman who apparently inhaled asbestos dust in laundering her husband's work clothes, the second a spinster who lived one block from the plant.

A relatively "new" disease, Mesothelioma is also one of the most difficult diseases to confront modern medicine.

It is almost impossible to treat. Middlesex General's Dr. Maxwell Borow says that even the most potent anti-cancer drugs have no effect on it. About all that radiation treatments do, he says, is remove some of the fluid that builds up in the lungs from the disease.

"The disease is 100 percent fatal," Dr. Borow states, "and usually takes less than a year after diagnosis to run its course."

Nobody knows why it attacks some asbestos workers and not others, or why some victims of the disease get it after an apparently mild exposure to asbestos. The University of Michigan School of Medicine cites one case of a man who was exposed to asbestos for about a month while he insulated his house. Six years later, he was dead of Mesothelioma.

Even the nature of the disease is little understood. While it's generally known that the disease attacks the lining of the chest and abdomen, nobody knows how it gets there.

When asbestos dust is inhaled, the fibers get trapped in the lungs, where they form gummy deposits. This explains how asbestosis gets started, and perhaps even lung cancer. One theory is that the gummy substance that builds up around the asbestos fiber lodged in the lung can cause cancer elsewhere in the body. But how does it do it? Nobody knows.

Because it is such a new and little understood disease, Mesothelioma is also creating some serious social and economic problems.

No state lists the disease in its workmen compensation laws, so nobody afflicted with it can be paid damages for his affliction. Even now, the first test cases are in the courts, where they may conceivably stay for the next five to 10 years.

The fact that nobody knows how much exposure to asbestos can bring on the disease has created controversy, too.

Most laws stipulate that asbestos workers be in an environment where there is no more than five million particles of asbestos dust per one cubic foot of air — a regulation that many in the asbestos industry fought years to get approved.

But with Mesothelioma, the disease might be brought on by exposure to as little as one-tenth or one-hundredth that limit. "We're really over a barrel on this one," states one doctor, "Because we don't know how much exposure causes the disease, we don't know what to recommend."

Despite obstacles like these, research has begun in a handful of places to find out more about the ailment. Mount Sinai's Dr. Selikoff is now constantly monitoring the 1500 members of the Asbestos Workers Union in metropolitan New York. The Philadelphia local of the same union has started a similar program with Hahneman Hospital to uncover more information.

Middlesex General's Dr. Borow says that he is in the process of setting up a traveling exhibit to bring attention to the disease. He's doing it with a 3500 dollar grant from the Papermakers Union, which represents the asbestos workers in the New Jersey plant Dr. Borow studied.

It wasn't easy getting the money. Dr. Borow went to 40 organizations before he got it — including the American Cancer Society and the Public Health Service.

Any attention the disease gets might come none too soon. More than 1 million tons of asbestos is consumed these days in the US, with more than 3000 separate uses being reported for the fast-growing fiber.

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