

Vinyl Chloride Link to Cancer

Known in 1971, Report Says

By Bob Kuttner
Washington Post Staff Writer

Evidence existed as early as 1971 that low doses of vinyl chloride caused cancer in laboratory animals, according to an internal technical report by the World Health Organization's International Agency for Research on Cancer.

The researcher isn't identified, but several prominent U.S. cancer scientists believe he is Dr. P. L. Viola, the Italian researcher whose earlier work first alerted the chemical industry to the possible carcinogenic — cancer-causing — effects of high doses of vinyl chloride.

So far, 14 deaths from a rare liver cancer called angiosarcoma have been reported among U.S. chemical workers exposed to vinyl chloride gas, which is the base ingredient for one of the most common plastics, polyvinyl chloride.

The disclosure Jan. 22 by the B. F. Goodrich Co. that three workers in its Louisville, Ky., plant died of angiosarcoma led to a crash research program by several federal agencies, including the National Institute of Occupational Safety and Health and the Labor Department's Occupational Safety and Health Administration (OSHA).

Consequently, OSHA adopted an emergency standard lowering exposure limits to vinyl chloride workers from 500 parts per million to 50 parts per million, and NIOSH

has recommended a permanent permissible level of zero.

In addition, dozens of consumer aerosol products containing vinyl chloride gas as a propellant have been withdrawn from the market.

In the wake of these findings, the chemical industry has been sharply criticized by cancer scientists for failing to fully inform either the government or its own plant physicians about the results of European studies showing links to cancer as early as 1971.

"If the latest report means what it seems to mean," said Dr. Irving Selikoff, director of the Environmental Sciences Laboratory at Mt. Sinai School of Medicine in New York, "then we're nearly four

years behind where we should be."

"You don't automatically assume that animal studies are conclusive, but the industry should have at least notified their own doctors," he added.

"It's inexcusable that they didn't tell the government," said Dr. Sidney Wolfe, director of the Nader-sponsored Health Research Group.

"It would have been appropriate for them to tell us about the European studies as soon as they knew," added a NIOSH scientist.

According to the Manufacturing Chemists Association, the principal industry trade association, the MCA invited Dr. Viola to discuss his study with U.S. industry representatives in May, 1971. The preliminary studies showed vinyl chloride was carcinogenic at levels of 30,000 parts per million.

By November, 1971, the MCA was aware that concentrations of 5,000 parts per million "and perhaps less" also could cause tumors in laboratory animals.

According to the latest World Health Organization report, which summarizes a meeting held last June, a laboratory in Italy during that period—presumably Dr. Viola's—was also finding that concentrations as low as 500 parts per million could cause tumors, including angiosarcomas of the liver. Those results have not yet been published.

Subsequently, the European chemical industry sponsored another series of experiments by a second Italian scientist, Dr. Cesare Maltoni. The U.S. Manufacturing Chemists Association learned of Dr. Maltoni's studies in late 1972. Those studies showed that animal tumors could be produced at concentrations as low as 250 parts per million, or half the permissible exposure levels for workers in the United States.

However, the MCA did not share the information with government agencies, having promised its European counterparts to keep the findings secret.

Instead, the MCA and several of its member companies contracted for new animal studies in the United States.

It also arranged for an epidemiological survey, to study the health records of workers exposed to vinyl chloride.

In June, 1973, at a meeting with NIOSH officials, industry representatives are said to have downplayed the significance of the European findings.

Although the 1973 Maltoni research indicated that liver cancer could be caused at concentrations as low as 250 parts per million, NIOSH director Dr. Marcus Key told an Aug. 21 Senate hearing on vinyl chloride that at the meeting "no mention was made to us about liver cancer and no mention was made to us about the name of the Italian scientist."

Only after B. F. Goodrich reported that its Louisville plant physician, Dr. John Creech, independently discovered three cases of angiosarcoma did the trade association fully reveal the Maltoni findings to NIOSH officials. Even at that point, according to NIOSH sources, the MCA asked NIOSH to keep the findings secret.

Dr. Maurice Johnson, Goodrich's medical director, confirms that he knew about the Maltoni study but said that he saw no need to notify the company's plant physicians. "It was by no means a finished study," he said.

When Goodrich's Dr. Creech found the third case of angiosarcoma among plant workers, Dr. Johnson said, "that was the clincher."

Only after B. F. Goodrich reported that its Louisville plant physician, Dr. John Creech, independently discovered three cases of angiosarcoma did the trade association fully reveal the Maltoni findings to NIOSH officials. Even at that point, according to NIOSH sources, the MCA asked NIOSH to keep the findings secret.

Dr. Maurice Johnson, Goodrich's medical director, confirms that he knew about the Maltoni study but said that he saw no need to notify the company's plant physicians. "It was by no means a finished study," he said.

When Goodrich's Dr. Creech found the third case of angiosarcoma among plant workers, Dr. Johnson said, "that was the clincher."