New Cancer Cases Widen Fears on Vinyl Chloride

By JANE E. BRODY

Four new cases of angiosarcoma of the liver have just been uncovered. They raise for the first time the possibility in the minds of public health officials that this fatal cancer hazard that has been linked to vinyl chloride may extend to hundreds of thousands of workers and to members of the general public.

Heretofore, the cancer risk associated with vinyl chloride, a basic chemical in the plastics industry, has been confined to the approximately 6,500 American workers who make vinyl chloride or convert the chemical to its polymer, polyvinyl chloride. Since January, when the hazard was first revealed, 19 cases of this invariably fatal cancer, which is extremely rare in the general population, have been uncovered among vinyl chloride workers here and abroad.

Among the newly revealed cases of angiosarcoma of the liver—three in New York State and one in Connecticut—are a worker who for 30 years made electrical wire insulation from polyvinyl chloride resin and a woman who for nearly 30 years lived four blocks downwind from a polyvinyl chloride manufacturing plant.

Public health officials are currently intensively investigating these cases because of their potential implication of a much more widespread hazard than previously suspected.

Although precise numbers are not known, informed sources estimated that hundreds of thousands of workers are engaged in the processing of polyvinyl chloride, generally known as PVC, into countless consumer and industrial products, including paints, furniture, floor tiles, clothing, food packages, dentures, garden hoses, pharmaceutical products construction pipes and insulation.

In addition, countless individuals with no occupational exposure to vinyl chloride or its polymer live in the vicinity of the 14 plants that make vinyl chloride and the 35 plants that make PVC.

The Environmental Protection Agency estimates that 300 million pounds of vinyl chloride escape into the environment each year as a result of this manufacture. Yesterday, the agency asked the 27 manufacturers involved to submit "process, emission and air quality data" to help it develop air pollution control standards for vinyl chloride in accordance with the Clean Air Act of 1970.

The agency has detected vinyl chloride up to half a mile from a PVC plant, as well as along a highway in Pasadena, the heart of the largest vinyl chloride producing region in the United States.

Other potential sources of exposure to this chemical have been the dozens of aerosol consumer products, including hair sprays and household pesticides, in which for years vinyl chloride was used as a propellant. Nearly all such products have been recalled in the last month.

The new cases of angiosarcoma of the liver turned up in a search of records of cancer registeries in New York State and Connecticut.

The New York registry contains a total of six cases of this disease, all six having lived in the Buffalo area, near where a large Goodyear plant has been making PVC since 1946. There is also a preliminary report of a seventh case in the Buffalo area. Three of the New York cases are men who worked at the Goodyear plant in Niagara Falls, but the other thee are all women who had no known occupational exposure.

Case in Connecticut

According to officers at the Center for Disease Control, one of the New York women, who died in January at the age of 62, had lived four blocks southeast of the Goodyear plant since the end of World War II. She also had her hair done each week for at least 20 years, although the beauty salon she patronized told officials they did not use vinyl chloride-containing hair sprays.

The Connecticut registry has accumulated a total of eight cases of angiosarcoma of the liver since 1935, Dr. Barbara Christine, director of the registry, told The New York Times. One of those, a man who died last July at the age of 60, had worked for 39 years at the General Electric plant in Bridgeport.

According to a company spokesman, for the first 30 years of the man's employment, he operated machines that processed plastic ("quite probably PVC"), rubber and other materials into insulation.

The company, which this week notified the National Institute for Occupational Safety and Health about the case, has begun medical tests, including liver function studies, of all employes exposed to any known level of vinyl chloride, the spokesmans aid.

The institute said it was consulting with the company about further studies, and the Center for Disease Control is investigating the other cases in the cancer registry.

Dr. Irving J. Selikoff, director of the Environmental Science Laboratory at Mount Sinai Hospital here, commented that "any one case could be a coincidence and more information is needed to define the precise risk. However, the new cases point to the urgent need for research to clarify the situation."

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