

Cancer link is minimized

By Robert Cooke
Globe Staff

A new study among former workers at a chemical plant in Springfield shows only a small - and possibly insignificant - correlation between exposure to chemicals and the incidence of cancer, the scientist who conducted the study says.

"There was a [statistically] significant excess for the rectal cancers," said Dr. Gary Marsh. "But that was the only significant finding in the whole report, and you can't place much weight on it."

Marsh, assistant professor of biostatistics at the University of Pittsburgh, conducted the study for the Monsanto Co., owner of the plant. In all, he studied the records of some 2500 employees who worked at the plant between 1949 and 1966.

The main findings from the new study, Marsh said, were:

- The results did not support the hypothesis that tumors of the digestive tract or the genital/urinary tract were related to general exposure to chemicals in the plant, or were related to the dates workers were hired.

- Cancer of the digestive tract and the genital/urinary tract - other than tumors of the prostate gland or rectum - were not related to employment in any of 21 specific work stations at the chemical plant.

- Of the workers with rectal cancer, 57 percent had been employed in cellulose nitrate production, which was a statistically significant excess of tumors. But, Marsh said, there is no recent literature linking bowel cancer with exposure to cellulose nitrate.

- Among the chemical workers with prostatic cancer, 29 percent had worked in polystyrene processing, but this result was not considered statistically significant.

Marsh, in a telephone interview, commented that "we tried to identify a particular workplace or agent they [the workers] were exposed to that could have been related to this [cancer] excess, but the only thing that came out of the report was this rectal thing."

As a result of these findings, Marsh's report recommended "updating the original Springfield study . . . so as to better assess the possible risk."

This third study was done because earlier work suggested there might be an excess of digestive tract cancers and tumors of the genital/urinary system, mostly the prostate gland.

A study conducted by a research group at UMass Amherst had also suggested there could be excessive mortality from cancer among former workers at the plant. That study focused on how the health of workers might vary according to where they worked in the plant.

The UMass study was conducted by Dr. Kenneth Rosenman and a team of graduate students from the university's Division of Public Health.

Dr. William R. Gaffey, speaking for Monsanto, noted that the University of Pittsburgh study "says that with the exception of the rectal and prostatic cancers, there's no suggestion of work-related illnesses in the deaths from all the digestive and genito-urinary cancers."

Asked whether current conditions at the plant will be changed in response to the findings, Gaffey replied that exposure conditions have changed significantly over the years, so the exposures are no longer the same.

"If these cancers are occupational, they're the result of exposures that occurred several decades ago, under conditions that were probably quite different" than they are today.