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Brain cancer

Gulf Coast research focuses on risk in industrial workers

By HAROLD SCARLETT
Post Environment Writer

A massive two-year study is getting under way along the Southeast Texas and Louisiana coasts to determine if some industrial workers face a special risk of brain cancer.

If this proves to be so, the two-stage study will then try to identify the specific chemicals or substances responsible so they can be controlled to protect the public health.

The study — the most extensive brain cancer research ever conducted — will cover a coastal belt stretching from the Houston area to New Orleans and northward to the Baton Rouge area. The study area has a heavy concentration of chemical, petrochemical and refining industries.

It will encompass a population group of about 5.5 million people, including 2.5 million in Texas, said Dr. Patricia A. Buffler, a principal investigator in the study.

Buffler is an associate professor of epidemiology at the University of Texas School of Public Health here, which will work with Louisiana State University on the study. Dr. Pelayo Correa will head the study for LSU.

The study, expected to cost \$1 million, is being funded with an initial \$600,000 research grant from the National Cancer Institute.

Brain cancer, a relatively rare disease, occurs in the general U.S. population at a rate of only about 4.5 cases in every 100,000 people.

Several separate studies at Houston area chemical plants in recent years have shown abnormal levels of brain cancer among plant workers. Those studies, however, failed to link the disease to exposure to any specific chemical.

"These single plant studies involve perhaps only 4,000 or 5,000 workers and around 12 to 15 cases of brain cancer," Buffler said. "That's not a very large number of cases to work with and really address the problem. There are not enough observations to be significant. It's like shooting BBs at a big target."

She said the new study will investigate about 500 new cases of brain cancer, all diagnosed between January 1980 and De-

cember 1984. The cancer victims, who may or may not work in industry, will be compared with a control group of 500 people who do not have brain cancer.

A comparison of the two groups will show whether the odds of getting brain cancer are higher for industrial workers.

Trained investigators will compile job histories of all 1,000 subjects and detail any occupational exposures to specific chemicals, Buffler said.

Buffler is hopeful the study of a large population group will definitively resolve the "still very equivocal" link between brain cancer and certain occupations and identify the specific chemicals or substances that are responsible.

Earlier studies by individual chemical companies showed abnormal levels of brain cancer among workers at the Dow plant in Freeport and Union Carbide and Monsanto in Texas City.

She said several major companies have agreed to work with the researchers in helping compile job and exposure histories.

The researchers, Buffler said, also will collect present and past addresses of the study subjects, and these will be compared with industries in specific census tracts to determine non-occupational exposures to pollution.

Water supply sources will also be checked as another possible route of chemical exposure, she said.

Buffler, a specialist in cancer epidemiology, and Correa of LSU are now winding up a lung cancer study covering much of the same area involved in the new study.

Results of another study by Buffler on the effects of Houston air pollution on joggers and asthmatics are to be announced in a series of April meetings.

The brain cancer study will cover 26 southern Louisiana parishes and six Texas Gulf Coast counties — Harris, Brazoria, Galveston, Chambers, Orange and Jefferson.

Results of the research are expected in the spring of 1985, but Buffler declined to speculate on what those results will be.

"I wouldn't be doing the study if there wasn't a suggestion (of a job link to brain cancer)," she said. "But I also wouldn't be doing the study if I already had the answers."

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