Lung Cancer

Autopsy findings link women's lung cancer rise to alert diagnosis

WASHINGTON—Three Yale epidemiologists suggest that women's higher incidence of lung cancer today may be more a reflection of physicians' diligence in diagnosing it among women who smoke than of the increase in the number of female smokers. But a pulmonary specialist describes their hypothesis as "convoluted reasoning."

The investigators base their theory on the "surprise discovery," in a 10½-year autopsy review, of nearly equal numbers of men and women with undiagnosed primary lung cancer. All 3,286 autopsies performed on adult patients at Yale–New Haven Hospital between September 1971 and May 1982 were included in the study.

Dr. Michael J. McFarlane, a Robert Wood Johnson postdoctoral fellow, presented his group's findings at the meeting here of the Association of American Physicians, the American Society for Clinical Investigation, and the American Federation for Clinical Research.

Small sample. Acknowledging that the sample size was too small for the findings to achieve statistical significance, Dr. McFarlane—speaking also for co-investigators Drs. Alvan R. Feinstein and Carolyn K. Wells—said, "We believe that some of the recently reported increase in lung cancer in women may be due to increased detection and that the increased detection may be enhanced by the increased number of women who smoke."

Primary lung cancer was found in 152 patients at autopsy, including 109 whose cancers were diagnosed during life and 43 whose tumors went undetected. Of those with diagnosed lung cancer, 77 were men and 32 were women—a ratio consistent with the expected lung cancer incidence differential between men and women. Of those with previously undiagnosed lung cancer, 24 were men—for a lung cancer rate of 14.3 per 1,000—and 19 were women—for a rate of 12.7 per 1,000.

Of the 43 unexpected autopsy results, 27 concerned patients who had never had a cancer diagnosis and 16 concerned cancer patients with unknown or incorrectly identified primary sites. "Our findings clearly contrast the reported rates of lung cancer diagnosed in men and women during life. We can assume that a great deal of lung cancer goes undetected among the general population, especially among women," Dr. McFarlane said.