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Bronchogenic Carcinoma

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Lung cancer rates in the United States continue to rise and if present trends persist there will be nearly 300,000 new cases annually by the year 2010.¹ Added to the well established hazards of cigarette smoking² is burgeoning evidence of the harmful effects of many commonly encountered environmental agents and occupational risk factors.³ Other predisposing elements have been observed and are under investigation—e.g., host determinants⁴ and genetic predispositions.^{5,6}

Treatment advances are slow; survival rates remain low. At present, the most effective means of controlling lung cancer may be close surveillance of the high risk patient. The Mayo Lung Project of the Mayo Foundation⁷ is conducting a controlled, prospective lung cancer screening program in males 45 years and older who smoke at least 20 cigarettes per day. The study group has a chest x-ray and pooled three-day sputum analysis every

four months, and the controls are urged to have the same tests yearly. The Johns Hopkins University and the Memorial Sloan-Kettering Cancer Center are carrying out similar projects. Firm conclusions cannot be drawn yet, but compared to controls, considerably more of the lung cancers found in the study group are diagnosed early, while the prognosis is hopeful.

Histology and Embryology

Table 1 lists the World Health Organization classification of malignant pulmonary neoplasms.⁸ Embryologically, the tracheobronchial tree is a ventral entodermal foregut derivative, lined by at least five types of epithelial cells forming a pseudostratified mucosal sheath resting on a basement membrane. Three types are columnar cells and include mucus-secreting goblet cells, ciliated cells, and brush cells. The two basal types are small, multi-potential cells (probably reserve columnar cells) that lie parallel to the basement membrane and give the mucosa its pseudostratified appearance. In addition to being in reserve for mature columnar cells, they probably harbor the potential for metaplastic squamous epithelial cells, which form in response to chronic irritation and are not a normal finding. Another basal cell, identified by electron microscopy, is the Kulchitsky or K-type cell. It is postulated that the

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THE LANGUAGE OF MEDICINE

Errors and misconceptions of former times are enshrined in terms like cholera, so called because the diarrhea and vomiting characteristic of the disease were believed to be a discharge of malignant bilious humor (chole bile), and gonorrhea, which means literally a flow of semen. Hysteria is so named because in ancient times the uterus (hyster) was considered a seat of mental afflictions. There is another allusion in this notion in gladius hystericus, which refers to the primitive belief that the "lump in the throat" of a distraught woman was the uterine fundus.

From: *The Language of Medicine: Its Evolution, Structure and Dynamics*, by John H. Dicker, M.D., published by Harper and Row, Inc., 1976, Page 66.