

the incidence of pulmonary malignancy, as reflected in autopsy data, is not a spurious one. It represents an actual increase in so far as more persons have died in recent years from this blastoma than in the years before the turn of the century.

*b. CHANGE IN THE RATIO OF LUNG CANCERS TO ALL CANCERS*

It has been argued that the increased number of cures in certain types of cancers attained with modern therapeutic methods has brought about such a marked shift in the mortality rates of cancers of different organs that the pulmonary cancers with their infaust prognosis have received a larger share than in former years, thus producing the impression of an increased frequency. While it cannot be denied that curative results have been obtained during the last twenty years in a definitely higher percentage of cases of certain accessible tumors (breast, cervix, and skin), these therapeutic successes have not been sufficiently numerous to prevent a continuous considerable rise in the number of deaths from malignant disease occurring during the same period. The better therapeutic results obtained in a few types of tumors are too limited in number to have produced such a fundamental shift in the relative death rates from cancer of various organs that an apparent rise in pulmonary tumors would have resulted.

*c. OVERAGING OF POPULATION AND ITS EFFECT UPON STATISTICAL DATA*

Some investigators have advanced the conception that the appreciable lengthening of the human life span, which occurred during the past decades, may have brought about an increase in the number of pulmonary cancers observed, by enabling a larger group of persons to reach the so-called cancer-age. While such an explanation may account for a certain part of this rise, it would not provide a plausible reason for the extraordinary increase above that of other cancers. It is quite doubtful and uncertain whether the aging processes of the body play any important role in the causation of any malignant tumors. Observations from the study of occupational tumors indicate rather that the so-called cancer-age is mainly or entirely a coincidental phenomenon. For the average individual it runs parallel to the average exposure time essential for the production of a malignant growth under average conditions.

It appears not only quite possible but entirely probable that the increased longevity has provided an opportunity for a larger group of persons to receive an exposure of sufficient duration to some carcinogenic agent, and thus to respond with a pulmonary cancer. At the same time, a possible increase in the number of extraneous carcinogenic agents, occurring in recent decades, may have brought a larger proportion of the general population into effective contact with these factors, producing an actual increase of pulmonary cancer during the "cancer-age," but unrelated to it. Observations made with occu-