

It is interesting to note that Pack and LeFèvre reached approximately the same percentage (2.74) as Leuenberger, upon analyzing the incidence of bladder cancers among the tumors treated at the Memorial Hospital in New York (1930). The incidence of bladder tumors in males, however, was 4.37 per cent, giving this organ seventh place in the relative incidence of cancers of the various organs. A gradual increase in the number of bladder tumors during the period surveyed was noted also by Henry, Kennaway and Kennaway: In 1921, one hundred and fifty bladder cancers were reported as compared to eight hundred and twelve in 1928; in 1921, eighty-six papillomas of the bladder were listed against one hundred and fifty in 1928.

In an analysis of mortality experience among industrial policyholders of the Metropolitan Life Insurance Company for 1917 to 1935, made by Dublin and Lotka, cancer of the urinary bladder displayed a significant trend of increase among white males and females. The rise of the death rate was more pronounced among men than among women. This observation must be considered as of definite importance, as it was made during a period when the introduction of the cystoscope had made cancer of the bladder accessible to direct observation. There seem to exist, on the other hand, wide geographical variations in this respect. Gaeta found that only 0.6 per cent of all neoplasms observed at the pathologic institute in Milan, Italy, were bladder tumors, while Wilinski reported from Leningrad that 1.76 per cent of all cancers in males and 0.9 per cent of all cancers in females were bladder neoplasms. In a recent report on the cancer mortality in the United States, Hoffman stated that 3.2 per cent of all cancer deaths were caused by bladder carcinoma. A similar ratio was recorded by Young and Russell (3.09 per cent of all cancers).

A reliable interpretation of these figures, at present, is difficult, as numerous factors enter which cannot be gaged properly. It must be conceded that the diagnosis of bladder tumors, that is of neoplasms, which were almost inaccessible to the clinician before the introduction of the cystoscope, was often missed before the turn of the century. The statistical data of that period are therefore less trustworthy than data of more recent date. The important factors of age and sex are rarely considered in the data available. The latter factor appears to be of special importance as bladder cancers are much more frequent in men than women (Pack and LeFèvre: 77.8 per cent in males; Joseph: 76 per cent; Matthews: 80 per cent), a discrepancy which may be attributed to anatomical and endocrine sex differences as well as to the fact that men are exposed more often to extrinsic carcinogenic agents of occupational or general environmental character. In spite of the uncertainties stated, evidence supports the belief that the incidence of bladder tumors has increased during the last four decades. This apparent or actual increase coincides with the increasingly extended use of synthetic chemical products containing components of aromatic organic nature, with which large portions of