

normal condition. The heterotopic location of these cells distinguishes carcinoma from all benign epithelial tumors. Atypical proliferation of epithelial cells signifies their growth and multiplication in a locality where they have no legitimate citizenship.

The malignancy of carcinoma is due to the fact that the epithelial cells remain in their embryonic state, fail to reach maturity, retain their abnormal vegetative capacity until degeneration sets in, and by virtue of their ameboid movements invade the neighboring tissues, enter the lymphatic channels and finally give rise to regional and general metastasis. It is this abnormal behavior of the epithelial cells, their prodigious vegetative capacity and their migration into all adjacent tissues, irrespective of their histologic structure, that characterizes their life history and intrinsic pathologic tendencies. What are the general influences or local conditions productive of such a morbid erratic cellular life? The disease in its incipency being local, it would be natural to search for local causes. If this be the case, where do the first textural changes take place? Are they to be found in the epithelial cells or in the tissues in their immediate environment? These are questions that must be answered before the etiology of carcinoma is definitely settled.

FACTORS IN THE ETIOLOGY OF CARCINOMA.

That the general condition of the organism, an aptitude, has some influence in determining the disease there can be no question, but that it is entirely responsible for it is more than doubtful. If a general predisposition were the principal agent in causing the disease, autoinoculation experiments ought to have proved successful. In the case of an inoperable carcinoma of the leg, a few years ago, I implanted subcutaneously fragments of carcinoma tissue from the same patient at two points on the affected limb. A little nodule formed at the seat of inoculation, remained stationary for about two weeks, and then disappeared entirely. The same experiment has been made by several other surgeons, with a similar negative result. The microscope has proved an invaluable aid in the study of the histology and histogenesis of carcinoma, but so far it has been powerless in demonstrating its cause. Future microscopic researches may yield unexpected results, but it appears to me that the time is at hand to extend our inquiries regarding the etiology of carcinoma beyond the