

Apart from these considerations unfavorable to the misplacement theories of cancerigenesis, the fact remains that neither the embryonic character nor the misplacement of embryonic or adult cells can explain plausibly the tendency toward an extraordinary proliferation and an atypical and neoplastic growth, which such cells are claimed to possess. These conclusions are confirmed extensively by observations made in connection with the morphological phenomena associated with occupational and related experimental cancerigenesis. The histological studies of such lesions show unmistakably, especially during the precancerous stage, that cellular alterations of preneoplastic and neoplastic type are often multifocal or sometimes even more or less diffuse. This excludes the possibility that preformed, germinative, embryonic cell foci form the anlagen of the cancers observed.

3. VIRCHOW'S THEORY

Similarly weighty objections may be raised against the chronic irritation theory of cancerigenesis of Virchow and its regenerative modification proposed by Fischer-Wasels (Roussy). Chronic inflammatory changes, often associated with prolonged and disturbed regenerative cellular proliferations, sometimes of metaplastic nature, are frequently found in a tissue from which cancerous growths originate. Regardless of this, the succession and co-existence of such cellular phenomena represents by no means a conclusive proof for the actual presence of a causal relationship. The chronic inflammatory conditions characterizing the large number of occupational dermatoses and certain chronic pneumoconioses are not significantly related to the occurrence of malignant tumors in these organs (Oppenheim; and Leitch).

Attention may be called to the fact that carcinomas of the male urethra, which is frequently the site of a chronic gonorrheal inflammation, are extremely rare [only 145 cases of carcinoma of the male urethra on record (Kreutzmann and Colloff)]. Similar conditions prevail in regard to the frequency of primary carcinoma of the Fallopian tube, which perhaps is even more affected by chronic inflammatory processes than the urethra, but which is equally rarely involved by malignant growths [239 cases reported up to 1930 (Gallagher; Holland; and Johnson and Miller)]. Chronic sinusitis, a rather common disease, is another chronic inflammatory disorder relatively rarely giving rise to cancer. Mention may be made of the comparatively low incidence of carcinoma of the cervix in a completely prolapsed uterus, which is exposed to all kinds of bacterial, physical, and chemical irritations and injuries (Högler). The actually minor etiological significance of chronic irritation in the production of cancer is indicated furthermore by the fact, that the transformation of the relatively frequent condylomata acuminata, which are eminently proliferative benign irritative lesions, into carcinomatoid or carcinomatous manifestations is evidently extremely rare (Buschke; Buschke and Loewenstein; Israel; Frei; and Mühlpfordt). Chronic, dysenteric, polypous