

3. The mucous membrane of the outer end of the Fallopian tube and malignant adenoma. Also, columnar epithelium may become squamous; for example, psoriasis of the endometrium, or squamous cells become columnar, due, perhaps, to metaplasia.

Growth of Cancer.—Growth of cancer cells is different from embryonic cells.

1. The cancer cell shows cyclic changes in the degree of differentiation of its histological characters.

2. It disobeys all the laws of growth of embryonic tissue. That is, it has the habit of growth minus the habit of function.

3. When transplanted, the blood vessels and supporting connective tissue scaffolding are supplied anew by a reaction elicited by the chemiotactic influences of the parenchymatous cells.

4. Cancer cells are specialized regrowth, and not undifferentiated cells.

5. The cancer cell has no analogy with any known form of infective disease.

Continued growth takes place after inoculation of living cells into animals of the same species.

The metabolism of the cancer is a property of itself, that is, a *vita propria*, the propagated tumor having much the same relation of the fetus to the mother. That is:

1. There would seem to be no toxic properties injurious to the host.

2. No disturbance in the cell metabolism.

Cyclical changes in cancer cells are shown by:

1. Rapid or slow growth.

2. Transitory cessation of growth.

3. Greater or less spontaneous immunization.

4. Variation in histological structure; for example, alveolar to acinous, and vice versa.

But we must remember the dosage and the soil are important factors.

Heredity:

Darwinism hardly applies here; that is, acquired cancer, etc., except, perhaps, in cases of metaplasia.

Weismann's theory that germ plasm is continuous from generation to generation, and that these germ cells have a potentiality of variation dependent upon environment. That is, oscillation in the nutrition of somatic cells may influence or cause variation in germ matter. Therefore, there is heredity in disease, or, as Garrod, in his Croonian Lectures, in 1908, states it: