

It will be seen that the theory that I have laid before you by granting to the cancer cells the habit of tenacious and incontinent growth explains the assumption by the cancer cells of embryonal characters, explains also the overgrowth of these cells, the bursting through the basement membrane, the growth along surrounding lymph spaces, and even in the course of the blood vessels, and, with this, growth similar in character to the primary development at a distance from the primary seat, and so explains the formation of metastases, in fact the theory includes and explains all the essential characters of malignancy.

So far in laying before you these suggestions upon the nature of malignant growth, I have dwelt more especially upon the influence of chronic inflammation of moderate intensity in leading up to neoplastic tissue formation. But it may well be asked if it is necessary to assume that chronic inflammation of moderate intensity is the sole factor to be recognized as originating the habit of incontinent growth. A theory starting from the ground that malignant growth is always preceded by a stage of long continued slight inflammation is indeed untenable, clinical evidence does not warrant a premise of this nature. The most that can be said is that, comparing the histories we obtain in connection with the development of malignant neoplasms which are visible and more or less superficial, with those obtainable in connection with cancer and sarcomata of deep seated organs, we find a very much greater proportion of statements of previous injury and of chronic irritation in the former than in the latter class. I need but call your attention to the almost constant history of irritation obtainable in cases of cancer of the lips or of the tongue, and recent studies would indicate that—in the case of cancer of the breast for example—the more fully the previous history of the patient is studied the more frequently do we obtain evidences of injury inflicted upon the region which has become the primary focus of cancer. (Here, however, it is to be noted that the injury may have been inflicted long years previously.) But granting all this there remain cases in which it is not possible to demonstrate the previous action of chronic irritation, and these cases are sufficiently numerous to render it, I hold, unsafe to attempt to employ the argument by analogy and to assume that though unnoticed there did exist a pre-cancerous irritative stage.

If we examine the conditions associated with slight chronic irritation we cannot fail to notice that with the overgrowth of the tissues there is an accompanying condition of increased nutrition. Take for instance the edge of a chronic ulcer. The zone of the increased epithelial and connective tissue growths is at the same time a zone of