

cancer cells show every sign of active growth. The power that these cancer cells have for multiplying in new environment is in itself an evidence of heightened vitality.

It is true that there are certain layers of cells in the normal body which possess a somewhat closely allied intense vitality. The botanists have for long recognized the existence of similar layers in the higher plants and have spoken of them as the "cambium" or cambium layer. I do not know whether with the advance of the gentle science any other name has been given to the strata of the permanently embryonal cells. It would be well if in physiology we had some term denoting the collections of cells of this nature. It is owing to the existence of these cell layers that we are able to transplant skin and periosteum. In the former the layer in question is the lowest layer of the stratum Malpighi, which throughout life exists in a permanent embryonal condition and which is constantly presenting cell division, and developing new individuals to help to form the epidermis and to replace the scales of dead cells that are constantly being thrown off. In the latter also we have present an analogous layer of permanently embryonal cells. These layers may be said to present throughout life the habit of growth, and it is interesting to notice how peculiarly liable these very cell layers are to become the seat of unrestrainable or unrestricted growth, to manifest malignancy. But under physiological stimuli this excessive growth does not show itself, and under physiological conditions when transplanted, while the vitality of these cells is sufficient to permit of their proliferation when placed in similar environment, when placed in abnormal environment they die, just as any other healthy tissue dies and is absorbed when it is transplanted either subcutaneously or intraperitoneally into another individual. The cancer cells accompanying this power of unrestricted growth have a vitality so intense that when transplanted into widely different regions of the host from the original primary seat of growth they still are able to proliferate, and indeed this intense vitality renders it not impossible that occasionally cancer cells transplanted from one individual may grow in another; but it must be remembered that it is wise not to regard this as a phenomenon of true infection, any more than it is wise to consider the grafting of skin from one individual to another a true infection.

Finally, let me say that that theory is most worthy of acceptance which while being the simplest embraces and explains the largest number of phenomena. As I have shown, the parasitic theory is too limited to be satisfactory. Parasites may possibly be one cause of