

conditions which are related, we are led to neglect the attempt to find some common cause for all these conditions, we are led to separate sharply the malignant epithelial growths (I use this term in its broadest sense) from the malignant connective tissue growths; or if this be denied, and the sarcomata be accepted also as of parasitic causation, we are, at least, led to separate all malignant growths from all benign growths; we are conducted, that is, to an *impasse*. For this may be definitely accepted that certain benign growths are wholly unassociated with the presence of any parasite. Take, for example, the little lamellar fibromata to be seen upon the capsule of the spleen, or take the papillomatous overgrowth of the mucosa at the edge of a chronic intestinal ulcer, take the long finger-like down growths of epithelium at the boundary of a chronic ulcer, or the bony overgrowth upon the inner side of the femurs of cavalry soldiers. In all these cases chronic irritation is absolutely sufficient to explain the developments, yet no distinction can well be drawn between these chronic inflammatory hypertrophies and other forms of benign tumours. We must, then, logically admit that functionless and heterotopic cell hyperplasia can be induced without parasitic association; and inasmuch as the benign may pass imperceptibly into malignant growths, and inasmuch as we can, for example, come across lipomata showing transition into sarcomata, or fibromyomata doing exactly the same, as again we can, in thyroid, encounter what are certainly benign growths—adenomata (the so-called foetal adenoma)—possessing all the histological characters of carcinomata, the only conclusion to be reached is that a study of the presumed parasite is calculated to lead us only a very little distance.

We must seek deeper than these suppositious parasites if we wish to discover what lies at the bottom of all malignant tumour growth, aye, of all functionless cell proliferation.

Now, that I may prepare you for the train of reasoning upon which I am about to embark, and that you may throughout the ensuing argument see whither it is tending, let me here state the conclusion at which I have thus far arrived from a study of neoplasms and not a little consideration concerning their characters and relationships. Briefly, I cannot but hold that the one fundamental phenomenon underlying the development of cancerous and other neoplasms is the assumption of a habit of growth, a habit of rapid cell division independent of external stimulus on the part of certain cells in one or other region of the body.

The power of growth and multiplication is not, it must be borne in mind, something new to the cell. Every cell in the body, we may