

sion begotten of the threefold use of the term "cancer," sometimes to define a *class*, sometimes a *genus*, and sometimes a species of tumors, or even in two or three of these senses, or at all events in a general and a special sense in the same page, is much to be regretted; but it is, perhaps, hopeless to attempt to rid ourselves of it for the present. A trace of such confusion lurks in the title of this lecture and of its two predecessors; for it is only by regarding the term "cancer" in one sense and the term "cancerous diseases" in another sense that the two terms become logically discreet, and subject to the copula "and." Otherwise, the combination is not merely tautological, but illogical; for a "cancer" must be a "cancerous disease," and a "cancerous disease" must be "cancer." It might be well if, although as physicians and surgeons we are wholly unable to exclude the word "cancer" from our vocabulary we could, under the guidance of the pathologist, more strictly limit its use. In practice, from kindly motives, the word "sarcoma" is frequently employed, when it is legitimate to do so, as a verbal mitigation of the more dreaded term. Doubtless, in ancient medicine and surgery, the earliest application of the term "cancer" was especially or chiefly to those forms of spreading and ulcerating growths which are typified by the hard, and hence so-called "scirrhus," tumors; but it was also applicable and was probably used, in regard to the softer and rarer forms of ulcerated new growths, later distinguished as encephaloid tumors; and, furthermore, it was employed in relation to the worst forms of progressively *eroding* cutaneous ulcers. But the term "cancer" undoubtedly came also to be used in relation to the larger forms of those tumors which are now designated "sarcomas," especially to those which are prone to ulcerate or slough, or have actually undergone those morbid changes. This is abundantly manifest by the descriptions and illustrations contained in theses and systematic works dating from the period of the revival of learning down to the present day. Notwithstanding the precise differentiation now established on anatomical grounds between these several tumors, their general characteristics, pathological significance and behaviour, serve sufficiently to unite them under the one term "invading or infecting tumors." But, it appears to me, a likeness or unlikeness in structure affords a more definite basis of a sound classification and just nomenclature than any resemblance or difference in their modes of *life*, propagation, or decay. The use of the term "true cancer," now sanctioned as a mode of distinction between the two chief and well-recognized divisions of these invading growths, is convenient, but unsatisfactory; for, again, a "cancer" is a "true cancer," and a "true cancer" is a "cancer." Moreover, no one dreams of seriously employing the

complimentary opposite "false cancer." For my own part, I cannot bring myself to designate any sarcoma which is derived from non-glandular tissue elements as a cancer. I prefer to adopt the subdivision of these "*invading tumors*" into two leading groups; (a) the *theliomas*, and (b) the *sarcomas*, according as they are derived from the "covering or lining" constituents, or from the "substantial framework" constituents, of the body.

A. *Theliomas*, whatever may be their site or basis of origin in the body, are "cancers." They originate in or from parts of the body which are descended from one or other of the three so-called embryonic layers of the blastoderm—viz., the *epi*-, the *meso*-, or the *hypo*-blastic layers, and are either (a) *epitheliomas*, (b) *mesotheliomas*, or (c) *hypotheliomas*. The *epitheliomas* (a) and the *hypotheliomas* (c) either effect mere plain membranes or surfaces, thus producing flat masses—the so-called plaques; or they effect the elevations or projections of a cutaneous or mucous surface, and so give rise to *warts*, or *papillomas*; or they effect the minute involutions of those surfaces, such as simple or compound open follicles, branched or contorted tubules, or small racemose glands, whether these belong to the skin or to the mucous membranes; or, lastly, they effect smaller or larger portions (never the whole) of the lobulated glands, such as the mammary gland, the salivary glands, the pancreas, the liver, the lungs, the testis, or the ovary, thus giving rise in these situations to more manifest and often very large tumors. In the case of the larger glands, and probably in smaller ones, the cancerous disposition may primarily affect the epithelium of the ducts or that of the acini of the gland, and thus either *duct cancers* or proper *gland cancers* arise. If the acini only are involved, an *adenoid cancer* is developed, which, indeed, constitutes a potentially, if not an actually invading *adenoma*. Lastly, the closed glands, such as the tonsillar and thyroid bodies and Peyer's patches, are liable to theliomatous disease. *Mesotheliomas* (b), which as *primary* formations are rare, are represented by such theliomatous growths as can be distinctly shown to originate in sites acknowledged to be within the area of those parts of the body which are derived directly from the mesoblastic embryonic layer—such, for example, as any well-established case of primary thelioma of the peri- and endo-cardium and the lining membrane of the bloodvessels, that of the lymphatic vessels and glands, and of the synovial membrane. These tumors must, of course, always be distinguished from deep-seated *secondary* growths, the products of invasion of an original *epi*- or *hypo*-thelioma. I believe there exists in every form of "thelioma," however minute, a substratum of modified basal tissue, not necessarily a distinct basal membrane which, as it seems to