

most valuable. When a tumor has assumed a carcinomatous or a sarcomatous appearance it is coincidentally locally malignant, if not in all cases generally malignant also. The terms, therefore, have a clinical significance and value. Only, let me repeat, they are valueless for purposes of relationship and classification and must bear no embryogenetic signification.

To explain these peculiarities of lepidomatous tumors, let me point out that:

1. After the embryonic period, it would seem that hylic tissues never take on lepidic characters. We have no instances, that is, in which, after embryonic life, we recognize that lining membranes or glands become differentiated from connective tissues.

2. It is generally held that the converse is also true.\* With regard to tumors we find the same principle evidently in operation.

3. We may confidently lay down that all tumors and portions of tumors, containing cell layers or cell groups of the lepidic type, have been derived from pre-existing lepidic tissue. Possibly this so-called principle is more of the nature of a postulate than of a proved law; we take it for granted, and may not be able to prove our position in every case. We have, that is, fairly numerous examples of neoplasms of lepidic type, developing in situations in which normal lepidic tissue is not present—adenomatoid tumors of the bone, gland-like follicles in the midst of uterine fibroids, cysts, or tubular spaces lined by cubical or columnar epithelium in gliomata—and the list might be lengthened.

In by far the larger number of cases of this order, either the structure of the tumor so conforms to known neoplasms, the origin of which has been traced positively to some glandular organ, that we are convinced that the growth has originated from the inclusion of a portion of such glandular tissue, or we recognize that the growth occurs in some region, in which, during fetal life, there has existed some duct or portion of lepidic tissue, in a region, likewise, in which in the adult we occasionally encounter the persistent remains of the same. But pathologists, I believe without exception, agree to the sense of this postulate; we may not know, in all instances, what is

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\* True, that is, until Beard's rather startling observations upon the origin of leucocytes is confirmed. According to this observer the first, and indeed the main development of leucocytes is to be found as a process of proliferation and metamorphosis of the hypoblastic epithelium of the follicles of the fetal thymus gland. Beard's observations were published eighteen months ago, but to the best of my knowledge they still lack confirmation. Leo Loeb, also (*Arch. f. Entwicklungs. Mech.*, 1898, Bd. vi., and *Medicine*, April, 1899), has thought to see connective tissue cells undergoing origin from the Malpighian layer of the skin: his observations have not gained acceptance. In lower forms of life, however, some definite cases have of late been brought forward of regeneration of hylic from lepidic tissues.