

(3) Combinations of Benign and Malignant Growths.

Examples: cases five, six, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen and eighteen.

Before we can be certain that we are dealing with true examples of multiple primary growths we must be able to exclude metastasis, extension by continuity, implantation, and transplantation. We may indeed be able to draw positive conclusions if we accept the three postulates of Billroth, which are: (1) Each carcinoma must have a different histological structure; (2) The histogenesis of each carcinoma from a different parent epithelium must be proved; (3) Each carcinoma must form its own metastases. Yet without doubt these requirements are so rigid as to bar out a great number of positive examples, and, with Woolley, I think we may disregard them, and base our opinions on a much less iron-bound formula. It is self-evident that it is not necessary for multiple primary growths, even of carcinomatous or sarcomatous nature to differ in histological structure. The second postulate is one that would in some cases be impossible of proof, nor is it any more necessary than the first. Then again, the growths may not be sufficiently advanced to have produced metastases, and yet these are the cases where we are best able to determine the point of origin with certainty. In short, the postulates demand too much. In deciding the question we should be guided chiefly by the histological structure of the tumours, their localization, our knowledge of the course of metastases in special cases, and the analogy existing between these combined cases and the ordinary development of tumours in simple cases.

The bearing of this subject on the larger one of the causation of tumours in general is of interest but too great a question to enter upon fully here. It is clear that in many cases irritation plays a subordinate part if indeed it enters into the question at all. Cases such as the malignant adenomata affecting both ovaries simultaneously suggest an origin in some developmental vitium, such as embryonic "cell-rests," but admitting this we must still go farther back in our search for the cause. In fact, the theories of Ribbert and Cohnheim, and the parasitic theory are in no way strengthened from our study of multiple growths. Woolley has pointed out that in some instances certain organs that are functionally connected are the sites of simultaneous tumour growths. This "systemic affection" is well illustrated in a case recorded by Walter (*Arch. f. klin. Chir.* 1896, LIII.), where there were present an adenocystoma of the ovary, cancer of the breast, and cancer of the uterus. This would point to some grave physiological vitium underlying the process. But when we have said this we have