

ing that adenomata growing in the kidney are developed from the cells of the metanephros unless the epithelium resembles that normal to the kidney.

W. H. Councilman (article "Adenoma," *Wood's Reference Handbook*), in describing the various forms of adenoma of the kidney, lays stress on the fact that, even when the epithelium resembles that of the kidney (*e.g.*, in cylindrical adenomata), no trace of glomeruli are ever found. He also emphasizes the fact that in the forms most nearly allied to renal tissue, *viz.*, adenomata of the convoluted tubules, the arrangement is not such as to suggest functional activity. This latter point, however, does not seem to be well taken, as these growths do not depart more from the renal type into the arrangement of their epithelium than do the hepatic adenomata.

Orth (*Lehrbuch der Sp. Path. Anat.*, Band II, p. 109), in a critical survey of the facts concerning hypertrophy and regeneration of the kidneys, while admitting that, to a certain extent, the secreting epithelium possesses powers of repair and hyperplasia, considers that there is no evidence that entire tubules are ever evolved out of existing kidney structures after birth, if at all, and regards enlargement of the kidney following extirpation of the opposite organ as simple and not numerical hypertrophies.

Some light may be thrown on the question by comparing the adenoid tumors occurring in the kidney with those of the liver. Both organs agree in presenting a form of adenoma characterized merely by a disorderly growth of epithelial cells readily derivable from the ordinary hepatic and renal cells. Here the resemblance ceases. The liver presents no other form of primary epithelial tumor except the rarely occurring condition of primary carcinoma of the bile ducts. The kidney, on the other hand, though, on the whole, relatively seldom the seat of tumor formation, presents an extraordinary variety of widely different epithelial growths, none of which show very close relationship to any of the structures normal to the organ. These facts seem easy to interpret on embryological grounds. The liver is a glandular organ, preformed at a very early stage as such, and in which every portion represented in early foetal life persists to