

form permanent functioning tissue. The kidney, on the other hand, arises in a way not yet fully understood from some portions only of a large number of embryonic structures, the subsequent fate of the parts not employed to form permanent tissues being to a large extent unknown.

Of course the great variety in structure characterising renal adenomata may be connected with the fact that in the normal kidney we find constant differences in the character of the epithelium in the convoluted tubules, looped tubules, and collecting tubules, but, except in adenomata of the convoluted tubules, no relation has been demonstrated between the site of the growth and the nature of the epithelium. It would not, perhaps, be going too far to say that the epithelioma of the convoluted tubules is the only one clearly shown to be undoubtedly of renal origin.

While Cohnheim's hypothesis of the origin of tumors has been unduly strained to account for the origin of tumors in regions where no undeveloped rudiments were known to exist, this contrast between the behaviour of the liver and kidney in the matter of primary tumors bears it out most strikingly on theoretical grounds. We have two organs having one homologous form of adenoma. In the organ (liver) in which all the parts represented in the embryo become permanent tissue, no other forms of adenoma occur. In the other (kidney), where several structures are arrested at various stages of their development, other adenomata are not only found, but are also very dissimilar in structure.

The presence of these rudiments in the kidney and their absence in the liver, seems to be the most reasonable explanation of the very different attitude of these two organs with regard to the occurrence of epithelial growths, since adenomata of the convoluted tubules and the ordinary adenomata of the liver present such striking analogies.

When we find a tumor occurring in the kidney and yet differing essentially from it in the nature of its cells, we may account for it in one of two ways. First, we may conclude either that it was derived from the metanephros, and that the estranged appearance of the epithelium is due to subsequent metaplastic