

W. T. COUNCILMAN. "The Pathology of the Kidney." *Journal A. M. A.*, January 13th, 1906.

Dr. Councilman notices the complex structure and circulation in the kidney, its excessive blood supply, its marked capacity for repair with slight capacity for complete regeneration of tissue, and the steady impairment of its structure with advancing age, due not only to arterial disease and wearing out, but also to the cumulative effect of slight lesions with constantly increasing inability to repair. The most easily understood kidney lesions are focal ones from bacterial invasion, either by way of the blood or through the urinary tract. Chronic congestion and urinary obstruction may also cause damage through pressure and interference with the circulation. How the damage constantly accompanying diffuse arteriosclerosis is produced is not known. The changes consist in the destruction and degeneration of the parenchyma and increase of interstitial tissue, the latter being now generally accepted as secondary to the former. There is no evidence of an independent increase of connective tissue in arteriosclerosis. It is probable that the condition in the kidneys is the result of many factors rather than of any one. The greatest difficulty in understanding the pathology of the kidney is found in the acute, subacute and chronic diffuse lesions not connected with changes in the flow of blood or urine, nor with the immediate action of bacteria. Among these are noticed the acute interstitial non-suppurative nephritis due to the disposition and proliferation in the renal interstitial tissue of lymphoid cells from the bone marrow, spleen, etc., which occurs in acute infectious diseases, notably in the acute exanthemata. Why these cells accumulate in the renal veins is not known. Epithelial degeneration in varying character and degree is the most frequent condition met with in all cases of diffuse nephritis, often exquisitely focal and sometimes remarkably selective. Thus, in diabetes, it only affects the cells of Henle's loops. The degeneration may range from very slight change to complete necrosis. Of the severer lesions of the kidney due to the diffuse action of soluble substances, Councilman notes one group in which glomerular lesions are most prominent. The most common cause of the glomerular affections, he believes to be the acute infections. They may be acute, subacute or chronic. The other form of chronic nephritis, chronic interstitial nephritis, causing a slow destruction of all parts of the kidney, the glomeruli least and secondarily, with a marked increase of connective tissue, is usually accompanied by arteriosclerosis. It is a composite disease; not one organ, but many are affected. In this connection he gives the results