

A REPORT OF THE EXPERIMENTAL PRODUCTION OF
CHRONIC NEPHRITIS IN ANIMALS BY THE
USE OF URANIUM NITRATE.*

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INTRODUCTION.

The study of chronic nephritis is one which for many years has commanded the interest and investigation of many observers. Since 1827, when Richard Bright first described the condition which we now know as Bright's disease, many attempts have been made to determine the relationship existing between the various types of diseases of the kidney, and the conditions which influence the development of those different types. It is impossible to discuss here the immense amount of literature which has been written on this subject, or to consider the bitter controversies which have waged. Even to-day, although certain types of subacute and chronic conditions are universally recognized, there is great difference of opinion as to the etiologic factors at work in the development of each.

In 1879 Weigert¹ published an elaborate discussion of kidney diseases viewed from the standpoint of pathologic anatomy, and in his classification he described a series of kidneys as "chronic hemorrhagic with heart hypertrophy" in which there are definite interstitial changes associated with the parenchymatous degenerations. This group he subdivides into three smaller groups:

1. Those kidneys which are normal or slightly larger than normal in size, are red or mottled in color and are firmer in consistency than normal. The capsule strips easily, the cut surface bulges a little on section, and the cortex is pale or mottled in color, while the pyramids are darker. There is a certain amount of fatty degeneration of the epithelium of the convoluted tubules, many of which are more or less completely obliterated while others are dilated and contain a clear or

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¹ A preliminary report of these experiments was read before the Association of American Pathologists in Washington, D. C., in June, 1907, and before the Laboratory Section of the Canadian Medical Association in Montreal, P. Q., in August, 1907.

1. Weigert: Die Bright'sche Nierenkrankungen von pathologisch-anatomischen Standpunkte. Samml. klin. Vortr. (Volkmann's), 1879, clxii-clxiii, 1411.