

man. Uranium nitrate was the irritant selected, because Richter⁶ has recently shown that by the use of this drug "it has become possible to produce a diseased condition in animals which is analogous throughout to Bright's disease." The experiments were performed in the Pathological Laboratory of the University of Toronto, under the direction of Professor J. J. MacKenzie. I wish here to express my gratitude to Professor MacKenzie for the interest with which he has followed the work, and for the many helpful suggestions he was at all times ready to give. I am also indebted to Dr. V. E. Henderson for help and advice throughout the course of the experiments.

HISTORICAL.

A review of the literature on experimentally produced chronic nephritis forces one to the conclusion that the results obtained have not been very satisfactory. In 1904 Rose Bradford⁷ suggested that a possible explanation of the many failures might lie in the fact that up to that time no irritant was known by which one could produce in animals a condition analogous to acute Bright's disease in man, i. e., an acute parenchymatous nephritis associated with the formation of edema. An exhaustive review of the literature up to January, 1907, may be found in Lyon's report⁸ entitled, "An Experimental Study on the Action of some Poisons and Toxins on the Kidney and Spleen," and in Ophüls' article⁹ on "Experimental Chronic Nephritis." Space will not permit more than a very brief review at this time.

Bradford⁷ has stated that mere destruction of renal parenchyma by a metallic poison is not sufficient to lead to the production of a true contracted kidney. Potassium bichromate injected directly into the kidney of an animal through the renal vein causes an extensive destruction of the renal epithelium, and if the animal survives the first acute attack, a subsequent atrophy of the tubules and glomeruli with definite shrinking of the kidney. But the condition has not the picture of a true contracted kidney because there is no proliferation of connective tissue.

6. Richter: Die experimentelle Erzeugung von Hydrops bei Nephritis. Beitr. z. klin. Med. Festschr. Herrn. Prof. Senator, Berlin, 1904, 283. Experimentelle über der Nierenwassersucht. Berl. klin. Wehnschr., 1905, xlii, 384.

7. Bradford: On Bright's disease and its varieties. Croonian Lectures, 1904. Lancet, London, 1904, clxvii, 191.

8. Lyon: Experimental study on the action of some poisons and toxins on the kidney. Jour. Path. and Bacteriol., 1903-04, ix, 400.

9. Ophüls (W.): Experimental chronic nephritis. Jour. Am. Med. Assn., 1907, xlviii, 483.