

A TEXT-BOOK OF PATHOLOGY

By E. T. BELL, M.D.

SIXTH EDITION

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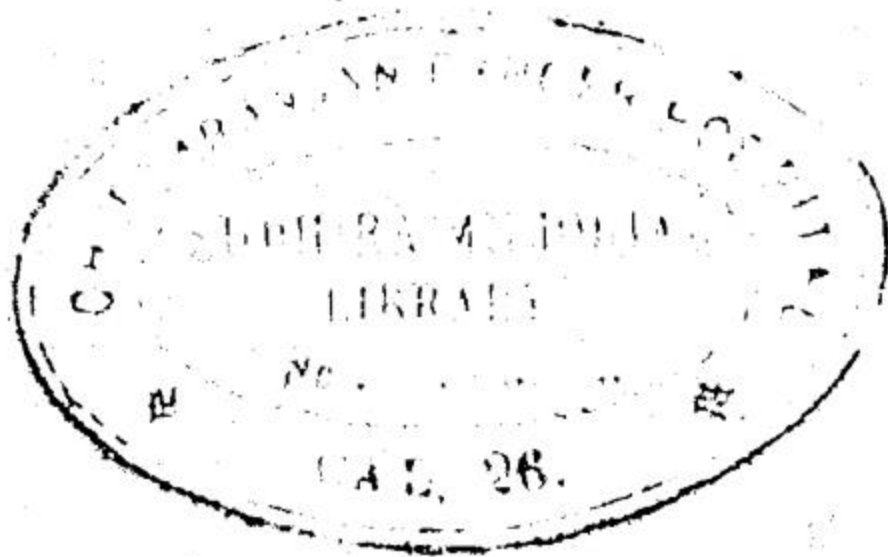
RENAL DISEASES

BY

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*Second Edition, thoroughly revised,
with 123 Illustrations and 4 Color Plates*



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PREFACE TO THE SECOND EDITION

No changes have been made in the basic plan of the monograph, but since about 18,000 additional autopsies have been surveyed a larger group of cases of each disease is available for study. The chapters on tubular diseases and extrarenal azotemia have been enlarged. The recent additions to the literature have been incorporated into the text.

E. T. B.

PREFACE TO THE FIRST EDITION

THIS monograph is in part a compilation of studies on renal diseases carried on by the author during the past twenty-five years, but a large amount of new material is included. The structural changes in the kidneys, the pathological physiology and the clinical manifestations of each disease are discussed. The rationale of treatment is presented but the reader is referred to special papers for the details of therapy. The relation of hypertension to the kidneys is discussed fully, and there is a discussion of the toxemias of pregnancy and the renal lesions in diabetes. In the exposition of each renal disease an effort is made to correlate the structural changes with the clinical manifestations. The pathologist often cannot make an accurate diagnosis unless he knows the clinical symptoms; and the clinician may be misled if he ignores the anatomical background of the disease. It is hoped that this monograph will help to bring about closer coöperation between these two groups of investigators.

The photographs were made by Mr. Henry Morris.

E. T. B.

MINNEAPOLIS, MINNESOTA

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RENAL DISEASES

CHAPTER I

INTRODUCTION—CLASSIFICATION OF RENAL DISEASES

THE purpose of this monograph is to present the pathology of the various renal diseases and the features by which they may be recognized clinically and at postmortem. The pathological physiology is discussed in connection with each disease since the type of functional disturbance is usually closely related to the underlying structural alterations in the kidneys.

The literature of renal diseases is now so voluminous that one can survey only the more important contributions and indicate the stages through which our thinking has progressed. Abundant references are cited for those who desire more complete information.

Renal diseases are more easily understood when classified on an anatomical basis. Apart from the malformations and hydronephrosis we may distinguish: (a) glomerular diseases, (b) tubular diseases, (c) diseases of the interstitial tissue, and (d) diseases of the blood-vascular system. The functional disturbances correspond rather closely to the anatomical changes brought about by disease. The diseases will be discussed according to the following outline.

CLASSIFICATION OF RENAL DISEASES

I. Malformations

A. Renal agenesis

1. Bilateral
2. Unilateral

B. Renal hypoplasia

1. Unilateral dwarfed kidney
2. Bilateral hypoplasia

C. Renal ectopia

D. Anomalies due to fusion

1. Horseshoe kidneys
2. Unilateral fused kidney, crossed renal ectopia

E. Duplication of pelvis and ureter

F. Cystic disease of the kidneys

1. Polycystic kidneys
2. Solitary cysts

II. Obstruction of the urinary tract—hydronephrosis

- III. Glomerular diseases
 - A. Diffuse proliferative glomerulonephritis
 - 1. Acute
 - Other forms of acute nephritis
 - 2. Subacute
 - 3. Latent chronic
 - 4. Active chronic
 - B. Membranous glomerulonephritis - lipoid nephrosis
 - C. Amyloid disease
 - D. Toxemias of pregnancy
- IV. Tubular diseases
 - 1. From bacterial poisons
 - 2. From chemical poisons
 - 3. From sulfa drugs
 - 4. From blood transfusion
 - 5. From casts
 - 6. Of unknown origin
- V. Extrarenal uremia
- VI. Diseases of the interstitial tissue (pyelonephritis)
 - A. Cortical abscesses
 - B. Pyelonephritis following urinary obstruction
 - C. Pyelonephritis without urinary obstruction
 - 1. Acute
 - 2. Chronic
 - D. Specific infections
 - 1. Tuberculosis
 - 2. Syphilis
 - 3. Acute lupus erythematosus
- VII. Diseases of the blood-vascular system
 - A. Passive congestion
 - B. Infarction, cortical necrosis
 - C. Periarteritis nodosa
 - D. Arteriosclerosis of the kidneys
 - E. Arteriolosclerosis of the kidneys and primary hypertension
 - F. Diabetes mellitus
- VIII. Diseases related to metabolic disorders
 - A. Disturbances in the metabolism of calcium
 - 1. Hypervitaminosis D
 - 2. Parathyroid tumors
 - 3. Renal dwarfism
 - B. Disturbances in the metabolism of uric acid
 - 1. Uric acid infarcts
 - 2. Gout nephritis
 - C. Renal calculi
- IX. Tumors