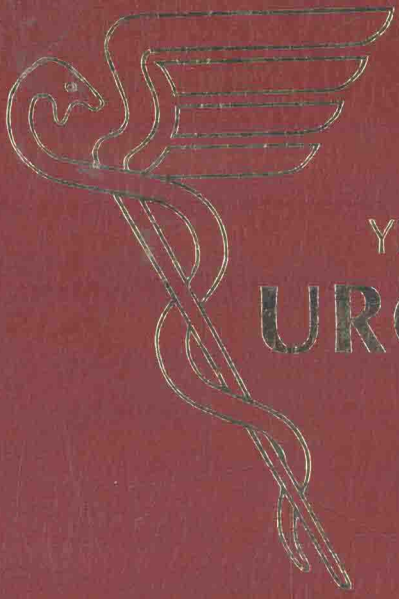

1980 YEAR BOOK OF UROLOGY

GILLENWATER
HOWARDS

The YEAR BOOK of

Urology

1980

Edited by

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Table of Contents

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Jay Y. Gillenwater, M.D.
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Introduction

The articles included in the 1980 YEAR BOOK OF UROLOGY were selected on the basis of their clinical relevance. The subject areas were chosen with the practicing urologist and the urology resident in mind. We attempted to select the best articles in each subject area from all the world's medical literature with the hope that the YEAR BOOK will serve as a quick reference source for the latest clinical literature. More than 3,000 articles were reviewed and, of these, approximately 10% were selected for inclusion in the YEAR BOOK. Most of the abstracts of the selected articles are followed by short critiques that represent the personal bias of the editors and reviewers.

Our review of the literature disclosed no articles that we felt reported major advances in urologic surgical techniques. However, several articles included in the YEAR BOOK deserve special mention.

In my opinion, the most significant contribution to the field of urology this year are the studies of prostatic hyperplasia by Jean Wilson and his co-workers (pp. 271 and 272). On the basis of laboratory findings, Doctor Wilson formulated a hypothesis to explain the development of prostatic hyperplasia: dihydrotestosterone is the hormonal mediator for prostatic hyperplasia in man or dog. The intracellular concentration of dihydrotestosterone increases in the prostate because of an increase in the concentration of androgen receptors and a decrease in catabolism. Estrogen increases the concentration of androgen receptors in the prostate and the process is thus accelerated. Doctor Wilson states:

"To the present, nonextirpative therapy has been directed toward either surgical or medical castration, the latter with the use of drugs that block the synthesis or the action of androgens. In either case, hypogonadism and impotence are common side effects. Therapy directed either at inhibiting 5α-reductase activity (and consequently dihydrotestosterone formation) or blocking the synthesis or action of 17β-

estradiol might inhibit further prostatic growth and/or induce regression of the prostate without causing impotence or other manifestations of hypogonadism. Indeed, to be effective, such therapy need not cause disappearance of the hyperplastic process but only enough regression to allow disappearance of the symptoms of obstruction."

Evan et al. (p. 181) formulated a hypothesis for the development of adult polycystic kidney disease. They described its pathologic development in animals and recently confirmed similar findings in patients. In experimental models of polycystic kidney disease, it appears that tubular obstruction caused by epithelial hyperplasia results in the formation of small intratubular polyps. Similar tubular epithelial hyperplasia and polyps were found in 4 patients with adult polycystic kidney disease. The hypothesis that partial tubular obstruction leads to cyst formation is compatible with the observation that the cysts are in continuity with the glomerulus and with clinical evidence that cysts develop slowly – over a lifetime.

Blacklock et al. (p. 92) report that gross hematuria in the long-distance runner is attributable to bladder contusions in the trigone area. They postulate that the flaccid posterior wall of the bladder hits against the bladder base during jogging and causes contusions with resultant bleeding. Fletcher et al. (p. 128) report on the loin pain-hematuria syndrome in 9 women. In women taking oral contraceptives, the clinical features of the syndrome are severe intermittent loin pain and hematuria. Renal arteriographic studies of these women show abnormal intrarenal vasculature of the smaller peripheral vessels. Burden et al. (p. 172) report that pathologic examination of three kidneys in patients with the syndrome showed "marked atherosclerotic changes involving the segmental, lobar, interlobar and arcuate arteries, with evidence in one kidney of early microaneurysmal formation." "These lesions of the more proximal intrarenal arteries were associated with occlusive lesions of the intralobular arteries, areas of cortical ischemia and cortical infarcts consistent with the changes resulting from microemboli" (Nephron 24:150, 1979). The etiology of the endothelial damage is not known. The authors postulate that the flank pain is caused by small cortical infarcts or rupture of microaneurysms.

Katzen et al. (p. 121) and Millan et al. (p. 122) report favorable results of percutaneous transluminal angioplasty with the Grüntzig balloon catheter. The procedure was introduced by Dr. Charles Dotter at the University of Oregon (Circulation 30:654, 1964) and the catheter used in the procedure was later improved by Grüntzig (Lancet 1:263, 1978). The authors report a 1-year patency of 90%, with poorer results in the presence of excessive calcium. Initially, the success rate of this procedure in patients with renal artery lesions was 94%; at 1-year follow-up, three of four procedures were considered successful. The success rate for patients with atherosclerotic plaques is less. The procedure is associated with a complication rate of 5%, including distal embolization in 3%, and requires careful patient selection. Because intimal fibrosis and atherosclerosis are progressive diseases, long-term follow-up is crucial.

Dunn et al. (p. 186) report a high incidence of complications associated with ileal conduits, and Elder et al. (p. 187) report a similar experience with colonic conduits. Leadbetter et al. (p. 98) suggest a 5% life-time risk of colon cancer after ureterosigmoidostomy.

Calne et al. (p. 154) report the successful use of cyclosporin A, a new potent immunosuppressant agent, in patients undergoing renal transplantation. The drug is steroid-sparing, nontoxic to bone marrow and will be a welcomed addition to the treatment program of transplant recipients.

Berger et al. (p. 325), in an excellent prospective study, document that *Chlamydia trachomatis* and *Neisseria gonorrhoeae* are the primary etiologic agents in acute epididymitis in patients younger than age 35. In patients older than age 35, *Escherichia coli* was found to be the predominant pathogen. Their study suggests that epididymitis is sexually transmitted in the young adult.

Fowler et al. (p. 265) and Herr (pp. 263 and 264) report the minor complications of node dissections in patients with prostatic cancer. Although node dissections allow the staging of prostatic cancer, no evidence suggests that the procedure is therapeutic.

The Hypertension Detection and Follow-Up Program Cooperative Group (p. 130) reports less risk of cardiovascular complications when hypertension is controlled even when the patient's blood pressure is only mildly elevated.

Lau et al. (p. 49) suggest that neutral phosphate is more effective than acid phosphate therapy in preventing calcium stones.

Van Thiel et al. (p. 311) found that cimetidine therapy was associated with decreased sperm counts in 43% of 7 men studied.

More studies deserve mention than can be covered in this Introduction. We hope that you will find all of the studies included in this YEAR BOOK to be both clinically practical and intellectually stimulating.

Jay Y. Gillenwater, M.D.