Open Surgery of the Prostate

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With 15 Figures

A. Introduction

Today's urologists have inherited from their teachers an understanding of surgical prostatectomy which has relegated such a procedure to a routine performance. This chapter will concern itself with the distillation of the present day practice of open surgical prostatectomy with special attention to the indications, the preoperative preparation and diagnostic evaluation, the established successful surgical techniques, and the management of possible complications. Transurethral prostatectomy, which has rightly become the technique most frequently used by American urologists for routine prostatectomy, will be considered in a separate chapter in deference to its special technical problems.

The triumphs and the earnest failures of our predecessors in the last eighty years are relegated to the chapter on the history of urology. Although not detailed here, they represented a colorful epic of daring perseverence and frequent disillusion. It is a fitting tribute to the accomplishment of the great clinicians of the past that prostatectomy by the suprapubic, retropubic, or perineal route is now a routine procedure.

B. Indications and Choice of Operation

I. Benign Prostatic Hypertrophy

It is generally agreed that the presence of prostatic enlargement alone, if there is no suspicion of malignancy, is not a sufficient indication for prostatic surgery. Patients with demonstrable prostatic enlargement who develop urinary retention or have objectively demonstrable urethral obstruction and impaired renal function must of course be advised to have surgery. Between these two extremes, judgment and wisdom must be exercised in advising surgery. Obstructive symptoms must be considered in the light of whether there is or is not infection present. In the absence of demonstrable infection, the presence of frequency, urgency, nocturia, weakening of the stream, or difficulty in initiating the stream may now be considered sufficient indication for corrective surgery and such surgery is likely to lead to gratifying results. In the presence of demonstrated infection, such symptoms may be transient and completely eliminated by specific medical therapy and elimination of the infection. Patients with recurrent infections, particularly if associated with epididymitis and with definite prostatic enlargement, should also undergo elective prostatectomy. The presence of a post-voiding residual is no longer a necessary indication before surgery is recommended, but if present does indicate significant decompensation of the bladder and the need for surgery. Other indications for such elective surgery include the development of bladder
calculi, the recurrence of repeated episodes of prostatic bleeding from engorged vessels on the surface of the prostate, and the presence of an inguinal hernia which is aggravated by the patient straining to void.

The presence of a neurogenic bladder dysfunction must be considered. It is important to realize that a previous cerebrovascular accident is a frequent cause of bladder spasticity with intact bladder sensation but impaired inhibitory control of reflex bladder contractions. Such patients may have symptoms indistinguishable from those of moderate prostatic obstruction. The rectal examination and cystoscopy will show unexpectedly little prostatic enlargement or bladder neck obstruction and in such cases a careful cystometrogram will unmask the presence of the neurogenic bladder. Such patients are not ideal for prostatectomy because the procedure may increase their urgency incontinence. It is best to treat such patients with anticholinergic medication and to follow them closely for the secondary development of infection or obstruction.

II. Chronic Prostatitis and Prostatic Calculi

Recurrent chronic prostatitis is to be treated if at all possible only with conservative medical measures which include specific antibiotics, judicious use of prostatic massage, and local heat. In some instances, these cases appear to progress to a bladder neck obstruction, presumably on the basis of the chronic inflammation around the bladder outlet, and usually accompanied by the presence of a small fibrous scarred prostate gland which is not in itself obstructive. Multiple small calculi are frequently present in such glands. Although some authorities advocate open prostatectomy and bladder neck revision for these cases, we prefer the more simple step of performing a transurethral resection of the bladder neck and prostatic tissue as the first choice of therapy. In those cases in which secondary bladder neck obstruction develops after a transurethral resection, then the use of open bladder neck revision becomes a treatment of choice.

There are some cases of active chronic prostatitis in which the symptoms of pain and dysuria seem to be unusually prominent. These are often accentuated in patients who have had a transurethral resection of a gland with prostatitis. A likely mechanism for such difficulty is the presence of occluded inflammatory pockets in the residual prostatic tissue or particularly in the seminal vesicle. The severity and unresponsiveness of such cases justifies the recommendation of open surgery to insure the removal of such chronically inflamed tissue and to provide symptomatic relief. The best procedure in such unusual cases is a perineal or retropubic prostatectomy, with subtotal resection of the apex of the prostate and the bladder neck to permit a more functional reapproximation of the bladder outlet. Sexual impotence is to be predicted after such a procedure. In fact, most patients in such a special category have already developed impotence as a part of their presenting picture; and if they have not, they are willing to accept it in return for the elimination of their severe symptoms.

Prostatic calculi which are small in size and are seen in plain X-rays of patients afflicted with chronic prostatitis, are in themselves not an indication for prostatectomy. However, if subtotal transurethral resection has been carried out in the past and infection exists in contact with such calculi, such infection is almost impossible to eradicate and open surgery is indicated. Further, prostatic calculi occasionally are large enough to produce outlet obstruction. Rare cases have been noted in which the calculus in itself was as large as a hypertrophied