

Short Case Report

Obstructing Prostatic Urethral Calculi

Giant prostatic urethral calculi are rare, but may occasionally cause urinary infection and obstruction. Although they may have begun as true prostatic calculi, these giant stones generally destroy much of the prostate gland and may require a different therapeutic approach.

Case Report

An 82-year-old white male was admitted for evaluation of recurrent urinary tract infection with obstructive and irritative urinary symptoms.

Physical examination revealed an enlarged, stony hard prostate. Urine culture showed greater than 100,000 organisms per cubic centimetre of *Proteus mirabilis*. Excretory urogram demonstrated two large calculi on the plain film (Fig.). The lower calculus was in the prostatic urethra, while the upper calculus was situated in the bladder. The bladder exhibited trabeculation and several diverticula. The upper collecting systems were normal. Urethroscopy revealed a normal anterior urethra and complete obstruction of the prostatic urethra by an enormous calculus. A suprapubic approach was used to remove the vesical stone. Vesical neck incision was needed to extract the giant stone which was located entirely in the prostatic urethra. Bimanual examination revealed



Fig.

only a thin rim of remaining prostatic tissue. The vesical calculus weighed 27 grams and the prostatic calculus 40 grams. X-ray diffraction crystallography of the vesical calculus revealed 90% magnesium ammonium phosphate, whereas the prostatic calculus was composed of 85% carbonate apatite (tri-calcium phosphate) and 15% magnesium ammonium phosphate. The patient's postoperative course was uneventful.

Comment

The management of prostatic calculi depends on their size, location, and the presence of urinary tract infection. True prostatic calculi are usually small and located in the periphery of hyperplastic glands, residing between the adenoma and the compressed prostatic tissue. In the presence of obstructive symptoms with persistent infection, enucleation or transurethral resection of the prostate with removal of the calculi is necessary to remove the obstruction and to eliminate a nidus for infection. When, however, a giant prostatic urethral calculus is the cause of both obstruction and urinary infection, enlargement of the stone and pressure atrophy of the prostate gland may have simplified its management. In this situation, as in the present case, suprapubic removal of the stone with vesical neck revision will probably suffice to relieve obstruction and infection. No formal attempt at removing prostate tissue is necessary, since an "autoprostatectomy" has already occurred, probably secondary to pressure and infection.

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References

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