

Case Report

GLOBAL PROSTATIC CALCIFICATION WITH PAN URETHRAL STRICTURE – A RARE PRESENTATION OF URINARY RETENTION

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ABSTRACT

Prostatic calcifications are common in men over the age of 50yrs. Calcifications are believed to be due to precipitation of prostatic secretions and calcification of the Corpora Amylacea under an inflammatory setting. There are no specific symptoms that are pathognomic for the presence of prostatic calcifications. It usually coexist with prostatitis or BPH in elderly men. We present here a case of 55yr old male with long standing lower urinary tract symptoms who underwent a retrograde urethrogram and was incidentally detected with global prostatic calcification and pan urethral stricture. An MRI study was further carried out for confirming the extensive calcifications. Such a presentation of global calcification in a patient with pan urethral stricture is very rare. His symptoms improved significantly on staged urethroplasty and the prostatic calcifications were managed conservatively. Any surgical intervention for calcification will be contemplated later if required. Symptomatic calcification not responding to conservative measures may ultimately need surgical intervention, usually transurethral resection of prostate. But a case like one presented here with global calcification, open prostatectomy is the best option

Keyword: *Prostatic Calcification, Prostatic Calculi, Prostatitis, Stricture Urethra, Urinary Retention, Prostatectomy*

INTRODUCTION

Prostatic calcifications are usually incidentally detected during evaluation for benign prostatic hyperplasia (BPH) or prostate cancer in elderly men. The majority of calcifications present with nonspecific lower urinary tract symptoms. They are commonly discovered during routine radiological investigation. The significance of such calcifications in relations to symptoms is not well defined and hence produce a therapeutic dilemma.

CASES

A 55yrs old male presented to the with long standing lower urinary tract symptoms (LUTS). He had a significant history of intermittent urethral purulent discharge for several years. He underwent catheterisation for a brief period 1 year back and had been voiding with increasing effort and a poor stream. On examination a hard and moderately enlarged prostate was detected on digital rectal examination and his USG study revealed a 34gms prostate with increased echogenicity and significant post voidal volume of 340ml (Figure 1C). A retrograde urethrogram (RGU) was done which revealed pan urethral stricture and global prostatic calcifications (Figure 1A, B).

He underwent a MRI study which revealed multiple T2 hyperintense foci consistent with multiple extensive calcifications (Figure 2). His serum PSA level was 1.2ng/ml. A trocar suprapubic cystostomy was done for urinary diversion. He underwent staged urethroplasty later and had satisfactory urinary flow on follow up. On follow up uroflowmetry, Qmax was 21ml/sec with a non straining pattern and post void residual urine on USG was 38ml. Since the patients primary voiding symptoms had recovered well after urethroplasty, further treatment for prostatic calcification was deferred. We are reporting this case here because of the rarity of such a presentation of global prostatic calcification in a patient with pan urethral stricture disease.

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Figure 1 A: Plain Kub

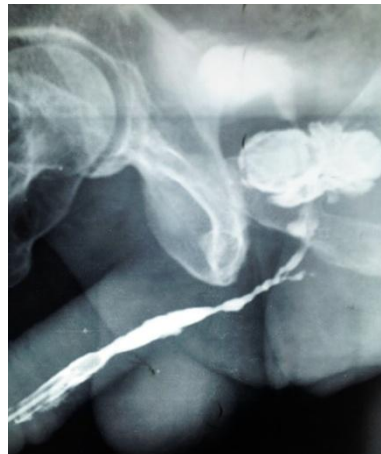


Figure 1 B: RGU



Figure 1C: MCU

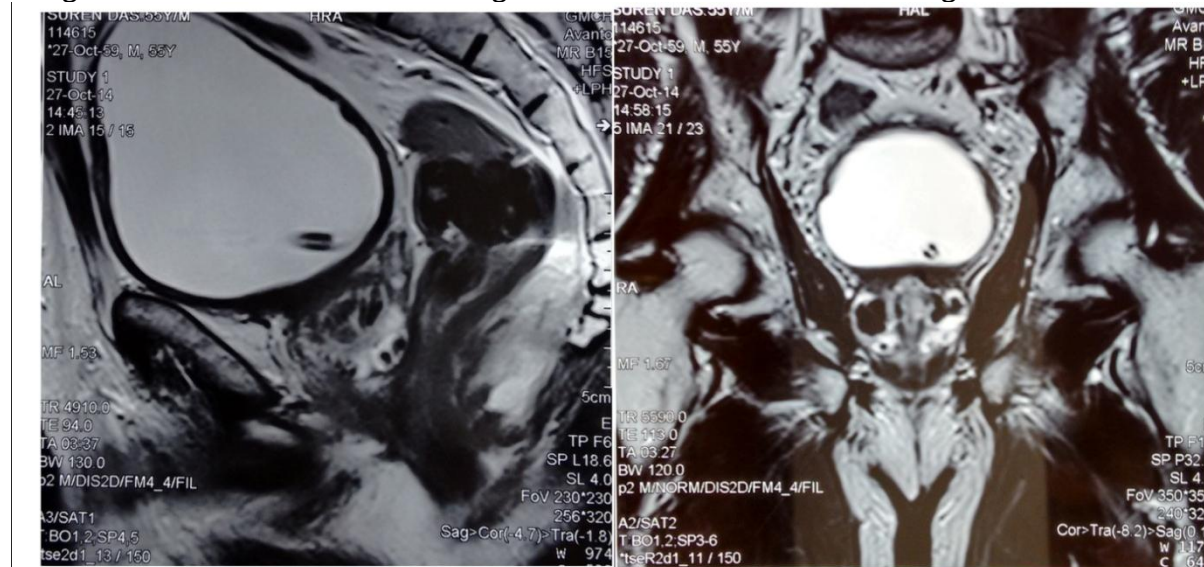


Figure 2: MRI

DISCUSSION

Dystrophic prostatic calcification, or calculi (if the calcific deposits reside within the prostatic ducts), are common in men over the age of 50yrs. Prostatic calcification are believed to be formed by precipitation of prostatic secretion and calcification of the Corpora Amylacea under inflammatory conditions (Venyo, 2012; Sfanos *et al.*, 2009). Corpora amylacea, which is composed of lecithin and nitrogenous substance of an albuminous nature, has a laminated structure and is believed to be formed around desquamated epithelial cells. Corpora amylacea are impregnated with inorganic salts (calcium phosphate and calcium carbonate), which convert them into calculi. The association of calcifications with benign conditions of the prostate gland are yet unknown. Though it has been suggested that corpora amylacea serve as the nidus for further calcification by infectious processes. The acini and ducts are dilated and filled with inflammatory cells and debris with loss of prostatic tissue in presence of large calculus. There are no specific symptoms that are pathognomonic for the presence of prostatic calcification. Our case is a rare presentation of urethral stricture with prostatic calcifications most likely infectious in nature. The presenting symptoms can also be attributed to stricture disease. Prostatic calcifications are often found in men with benign prostatic hypertrophy or prostate cancer (Geramoutsos *et al.*, 2004). The majority of calcifications are discovered incidentally, usually in course of a radiological investigation for other

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medical conditions. Diagnosis of prostatic calcification may be made following digital rectal examination, plain radiography or ultrasound scan.

Prostatic calcifications are most often asymptomatic; however symptoms that may be attributable include reduction of the urinary stream and LUTS (Konig *et al.*, 2004). In our case the lower urinary tract symptoms were predominantly due to pan urethral stricture. The association of stricture disease with prostatic calcification is very rare and has only been suggested in some published reports. Conservative measures may be advocated initially for prostatic calcification as in our case where satisfactory improvement in symptoms was achieved on correction of the stricture. Such rare cases provides an insight to the various presentations of prostatic calcifications and debates the need for treatment in all cases. Prostatic calcification may require transurethral resection in intractable cases. In a situation of global calcification open prostatectomy may be the best option when surgery is indicated (Klimas *et al.*, 1985; Drach, 1992).

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