PROSTATIC CALCULI

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Introduction

True prostatic calculi are those, that develop in the acini of the gland, and are not to be confused with so called "false calculi", that may be urinary calculi, lodged in a dilated prostatic urethra or in a pouch of the urethra. The prostatic calculi are formed by the deposition of calcareous material on the corpora amylacea. 'Gentile' reviewed 40 cases at New York Hospital between 1920 to 1946 and stated that the corpora amylacea obstruct the prostatic ducts transforming the acini into close cavities. This is followed by infection of the prostatic secretion within the prostatic acini, owing to stasis, with an alkaline or neutral reaction. The infection results in inflammatory changes in the mucous membrane of the acini, and the irritated mucosa casts off inorganic salts (calcium phosphate and calcium carbonate). These salts impregnate the corpora amylacea, converting them into calculi. Winman observed that some prostatic calculi arise from precipitation of salts found in the normal prostatic fluid, that is, calcium and magnesium phosphates, while others have held that the corpora amylacea may serve as nuclei.

On review of literature, it seems that, prostatic calculi are by no means uncommon but may give no symptoms, others give perineal pain and disturbances of micturition, while a few ulcerate in to the urethra and thereby produce agonising pain, specially on micturition. Such a bizarre presentation and lack of reported cases from this part of the country prompted us to report this case.

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Case Report

A sixty years old man came with complaints of dull aching pain in the perinium and difficulty in voiding the urine, lack of force of stream and dribbling of urine for the last one and a half years. Now, for the last ten days he was complaining of severe deep pain in the perinium and rectum specially at the time of defecation. As usual a provisional diagnosis of enlargement of prostate (Benign Hypertrophy/Carcinoma Prostate) was made. On rectal examination, the prostate gland was enlarged and the consistency was firm, rectal mucosa free. The X-ray of the pelvis showed rounded radio-opaque shadow opposite ischeopubic ramus in the midline. The central portion had a radio-lucent area, running longitudinally like a tunnel. On the right side, it had two small projections. After X-rays, urethral sound was passed without any stony sound in the bladder and a possibility was borne in mind that the stone might be in the postate rather than in the urethra and the bladder. A finger was put in the rectum and again urethral sound was introduced, and this time we got a crepitus sound in the prostatic area right of the median groove. The bladder was explored by suprapubic cystostomy. On putting the finger in the prostatic urethra, resistance was felt more on the left side and on the right side, there was spiky concretion underneath the urethral mucosa. At the site of the concretion the urethra was split open by the finger, purulent pus with foul smell came out. On exploring the abscess cavity in the prostatic bed, a fairly big sized stone was detected and was taken

Clinical Photograph
showing prostatic
caliculi removed after
operation.

Clinical Photograph
showing prostatic caliculi
removed after operation and
small projections and a
central tunnel.

out. The ragged prostatic cavity was packed after putting a Foley's indwelling catheter in the bladder. The pack was removed after 48 hours. The catheter was kept in situ per urethra for 12 days. Post operatively patient was given Gentasporine injection. At the time of discharge the patient had no urinary trouble and the pain completely disappeared.

Discussion

Always hesitate to ascribe symptoms to prostatic calculi (Jan - Aird, 1957) Symptoms may be due to co-incidental disease and the calculi symptomless. Large calculi lie in nests of hollowed out prostatic tissue, and are as a rule faceted. The case reported, under study had fairly big sized brownish faceted stone with a notch in the centre, corresponding the urethra and two spiky projections on right side, (see clinical photographs of stone).

Regarding pathogenesis of the prostatic calculi, infection plays an important role. "Gentile" reported presence of infection in all the 40 cases, where as others believe that corpora amylacea serves as a nucleus. The corpora amylacea are small, round or oval bodies present in alveoli of prostate gland. They are rare in boys, but frequent in man. These are laminated structure composed of lecithine and nitrogenous substance of an albuminous nature, apparently formed around disquamated epithelial cells. In elderly man, they tend to become laden with lime salts, the inorganic constituents being calcium or magnesium phosphates or carbonates. The case under study had prostatic abscess and that precipitated the symptoms and the patient reported for the treatment. The stone was removed successfully through suprapubic transvesical route with uneventful post operative recovery.

Summary

A rare case of prostatic calculi is presented. The relevant literature on this subject is briefly reviewed. The symptoms started only when patient had secondary infection. The stone was removed successfully through suprapubic transvesical route, with uneventful post operative recovery.

Reference

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