Case Report

Received: November 25, 1994

Accepted: March 8, 1995

Urol Int 1995;55:181-182

Calculus in the Vas deferens in a Case of Obstructive Azoospermia

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Key Words

Calculus
Vas deferens
Azoospermia

Abstract

Calcific lesions of the vas deferens are uncommon. We report a case of obstructive azoospermia in which a well-formed calcine lesion was found in the vas deferens during performance of a vaso-epididymotomy.

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Case Report

A 25-year-old male presented with primary infertility of 3 years duration. There was no history of scrotal trauma, scrotal pain/swelling or tuberculosis. The secondary sexual characters and the genitalia were well developed. The vasa were thickened bilaterally near the superior pole of the testes but there was no vasal beading. Per-rectal examination revealed a smooth prostate. Semen examination showed azoospermia. However, fructose was present. The serum follicle-stimulating hormone, luteinising hormone, blood sugar and erythrocyte sedimentation rate were within normal limits. The X-ray of the chest was normal. A diagnosis of obstructive azoospermia was made. On exploration, the right vas was thickened for a distance of 2 cm near the superior aspect of the right testis. An X-ray of the scroti was taken which revealed a radio-opaque shadow in the region of the vasal thickening. On opening the vas, it was found to contain a 0.8-cm shining white calculus within its lumen (fig. 1). Another 0.3-cm calculus was present 2 cm distal to the larger calculus. The left vas deferens was similarly thickened but there was no calculus inside. On both sides the epididymal tubules were dilated and the distal vas was patent. Vaso-epididymotomy was performed on both sides. The calculus, 8×4 mm in size, was glistening white in colour (fig. 2), and the surface was smooth.

Vasal biopsy from the calculus site showed considerable fibrosis and areas of dystrophic calcification. The histopathology of the calculus revealed a hyalinised mass with areas of dystrophic calcification (fig. 3).

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Fig. 1. Intra-operative photograph showing the isolated vas deferens. The calculus can be seen bulging out of the longitudinal incision made over it.

Fig. 2. The stone. It has chipped off at places because of its brittle nature.

Fig. 3. Photomicrograph of the calculus showing hyalinisation and dystrophic calcification. HE $\times$ 100.

Discussion

Diabetes mellitus [1] and tuberculosis [2] are the usual causes of calcific lesions of the vasa. Such lesions are commoner in diabetes than in tuberculosis [2]. Kar and Phadke [3] reported the presence of 'cheesy material' in the lumen of the vas in cases of obstructive azoospermia. However, this could be washed away by irrigation. To our knowledge this case is the first case of a well-formed calcific body present in the lumen of the vas.

The patient did not have any evidence of tubercular focus in his body. The vas deferens is capable of secretions and absorption [4, 5]. The histopathology of the vas and the calculus suggested that possibly these secretions were inspissated and secondarily calcified. What caused this change in the nature of the secretions is at best speculative – unrecognised trauma or low-grade inflammation might have been responsible.

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