

Lithiazis in the periurethral gland of a woman

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Summary

We present a very rare case of stone formation in the periurethral gland of a 49-year-old woman who was referred to our hospital with suspicion of a malignant or granulomatous soft-tissue lesion in the paraurethral area. The lesion was excised and the histopathological examination revealed cystic dilatation and squamous metaplasia in the lining of the glandular structure and surrounding lymphocyte infiltration. The scanning electron microscope examination of the stone revealed egg shell-like stratified concentric calcifications. The chemical composition revealed by the X-ray diffraction technique was a mixture of calcium oxalate and phosphate similar both at the outer and inner layers.

Key words: Lithiazis; Periurethral gland; Woman; Scanning electron microscope; X-ray diffraction.

Introduction

The formation of a stone in the periurethral gland in women is a very rare clinical situation. In the literature few authors have reported such cases [1-3]. Thus, we report this very rare case of stone formation in the periurethral gland and present the chemical composition of the stone together with the morphological structure examined under scanning electron microscope.

Case Report

A 49-year-old woman was admitted to our university hospital with suspicion of a granulomatous lesion or malignant soft-tissue lesion in the paraurethral area. She was complaining of palpation of firmness around her urethra while wiping after urination during the last few years and intermittency and difficulty in voiding which increased in severity during the last six months. Her medical history was non-specific. She had had no systemic disease nor any operations before. Her physical examination revealed that the urethral meatus was deviated to the right upper side by a firm mobile mass with calcified surface on bimanual vaginal examination located in the left lower side of urethral meatus (Figure 1). Her uroflowmetry study revealed an obstructed and intermittent pattern of voiding with residual urine of approximately 60 cc. Vaginal superficial ultrasonography revealed an approximately 15 mm diameter hyperechoic lesion with a smooth margin that had a posterior acoustic shadow in the periurethral region. Ultrasonographic findings were consistent with calcification. Under sedation and local anesthesia, cystourethroscopy was performed to rule out any lesion related to the urethra and bladder. Lumen of the urethra and bladder was normal and no pathological finding was present. The lesion was excised under microscopic magnification. The macroscopic examination of the excised formation revealed a stone formation in a cystic dilatation of the periurethral gland (Figure 2). The histopathological examination revealed cystic dilatation and squamous metaplasia in the inner lining of the excised glandular structure and surrounding lymphocyte infiltration.



Figure 1. — Macroscopic appearance of the stone in the periurethral gland deviating the urethral meatus to the upper right side. Figure 2. — Macroscopic appearance of the excised glandular structure and the stone containing squamous metaplasia.

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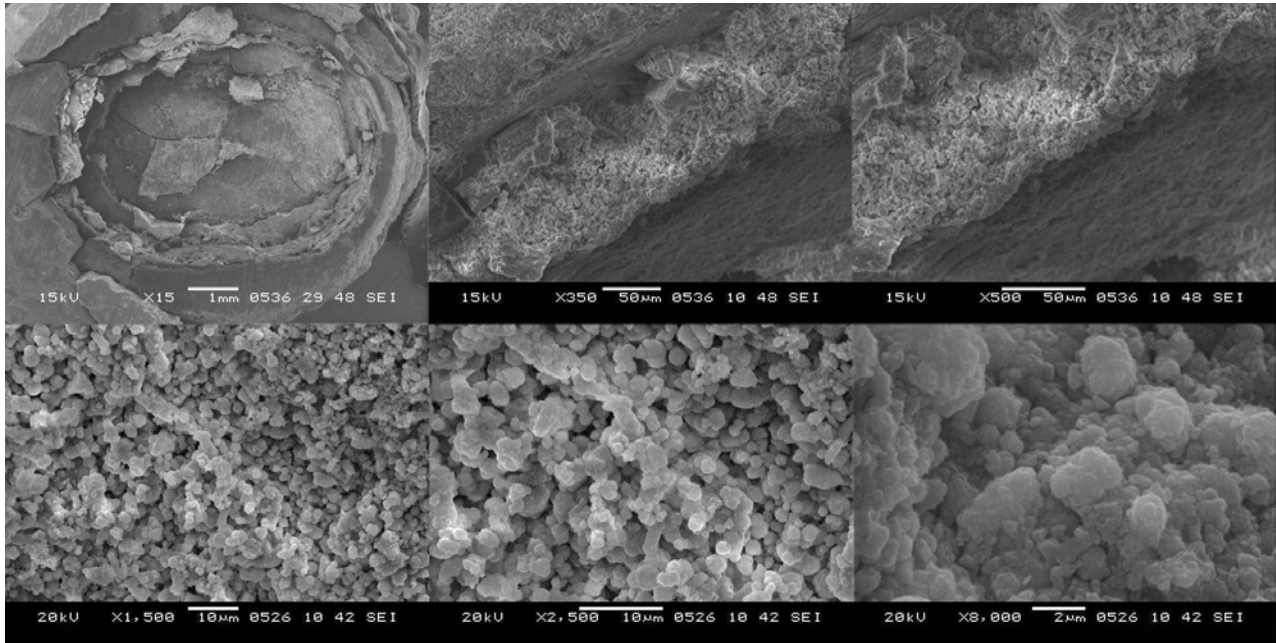


Figure 3. — Scanning electron microscope examination of the stone with different magnifications.

phocyte infiltration. Her voiding complaints were healed immediately after the operation and the uroflowmetry performed one month after operation revealed a completely normal voiding pattern with minimal residual urine. The scanning electron microscope examination of the stone revealed egg shell-like stratified concentric calcifications (Figure 3). The chemical composition of the stone revealed by a X-ray diffraction technique was a mixture of calcium oxalate and phosphate similar both at the outer and inner layers.

Discussion

In women, lithiasis in the periurethral gland is a very rare clinical situation [1-3]. The calculus seems to be formed by precipitation of calcium oxalate and phosphate deposits concentrically in the obstructed gland as suggested by the egg shell stratified concentric layered view seen under scanning electron microscope.

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