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Giant Bladder Lithiasis: About 3 Cases in the Urology Department of Sominé Dolo Mopti Hospital (Mali)

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Abstract | **Case Series**

Bladder stones represent approximately 5% of all urinary stones. They are common in developing countries, rare in industrialized countries and exceptional in the absence of associated lower tract pathology. In humans, urinary stasis is the essential factor in the formation of bladder stones. We report three cases of giant stones, operated in the urology department of the Sominé Dolo hospital in Mopti Mali by cystolithotomy. These stones weighed 292, 160 and 158 grams respectively. The causes of these stones were, for the first and second patients, sclerosis of the bladder neck, and for the third patient, a stricture of the urethra. The postoperative course was simple. These observations highlight a late consultation in a society where questions relating to the urogenital sphere remain a taboo.

Keywords: Lithiasis – bladder – giant stone – cystolithotomy – sclerosis – stricture.

INTRODUCTION

Urolithiasis is a common condition. It is estimated that approximately 11% of males and 7% of females are affected by urolithiasis during their lifetime [1]. Recent studies suggest an increase in the prevalence and incidence of urolithiasis [1, 2]. Bladder stones represent approximately 5% of all urinary stones [3]. They are common in developing countries, rare in industrialized countries and exceptional in the absence of associated lower tract pathology. In humans, urinary stasis is the essential factor in the formation of bladder stones. This urinary stasis is often the consequence of a cervicoprostatic or urethral obstruction or neurological dysfunction of the bladder [4-6]. The diversity of presentation, which ranges from asymptomatic to lower abdominal pain, including dysuria, macroscopic hematuria or urinary retention, can make diagnosis difficult [7]. Bladder stones often form over several years and are relatively small [2]. Large lithiasis weighing more than 100 grams or giant lithiasis are rare. Their treatment is based on classic surgery: cystolithotomy associated with the treatment of the obstructive pathology of the lower urinary tract responsible for the stone formation.

We report three cases of giant stones, operated in the urology department of the Sominé Dolo hospital in Mopti by cystolithotomy. These stones weighed 292g respectively; 160g and 158g.

Presentation of Cases

Case #1:

F S. patient aged 53, Peulh, farmer in rural area was referred to the urology consultation of the Sominé Dolo hospital in Mopti for urinary disorders of the lower tract associating dysuria, burning during urination, terminal hematuria, episodes of urinary retention, the management of which was repeated bladder catheterization in his community health center. Antibiotic therapy based on ceftriaxone was initiated and referred. At the time of questioning, the micturition problems date back approximately 6 years. Self-medication based on painkillers and consultations with traditional practitioners had been undertaken. He had no particular background. Urogenital examination revealed hypogastric pain on deep palpation without palpable mass. Exploration of the uretrovesical canal with the benique made it possible to detect the lithiasis in the bladder. Rectal examination was unremarkable. On the X-ray of the abdomen without preparation centered on the pelvis, a rounded calcium tonalite opacity projecting into the bladder area was found. It was bladder lithiasis

and a cystolithotomy associated with dilation of the bladder neck was carried out after the patient was conditioned. It made it possible to extract a bladder stone weighing 292 grams. Cystorrhaphy was performed on a Charrière 20 uretrovesical catheter indwelling for 15 days. The postoperative course was simple.

Figure 1: X-ray of the pelvis showing a large opacity occupying the bladder area compatible with a bladder stone.

Figure 2: giant bladder stone weighing 292g measuring 8/7 centimeters.

Case #2:

A G. patient aged 50; Dogon, a farmer presenting symptoms of lower abdominal pain, dysuria and intermittent hematuria was seen in the urology consultation of the Sominé Dolo hospital in Mopti. At the time of questioning the symptoms date back approximately 8 years, self-medication and medicinal plants were carried out. He had no particular background. Physical examination revealed lower abdominal pain. Uretrovesical exploration with the benicate noted the presence of lithiasis in the bladder. Rectal examination was normal. Abdominal ultrasound revealed hydronephrosis, thickening of the bladder wall and a large stone. Plain abdominal radiography centered on the pelvis showed a calcium tonalite opacity projecting into the bladder area. It was bladder lithiasis and a cystolithotomy associated with dilation of the bladder neck was carried out after the patient was conditioned.

Figure 3: X-ray of the pelvis showing opacity in the bladder area consistent with a bladder stone.

Figure 4: Giant bladder stone weighing 160g measuring 7/5 centimeters

Case #3:

B D. patient aged 26; Peulh, trader with urinary flow disorders; dysuria, hematuria was received in the urology consultation of the Sominé Dolo hospital in Mopti. At the time of questioning the symptoms went back about 6 years, self-medication and medicinal plants were also carried out. He presented with urethral discharge syndrome more than 10 years ago, treated traditionally. Physical examination revealed lower abdominal pain on deep palpation. Urethral exploration with the benic revealed the presence of urethral stenosis. Rectal examination was normal. Abdominal ultrasound revealed severe bilateral ureterohydronephrosis with a large bladder stone. Retrograde urethrocystography revealed urethral stenosis. An endoscopic internal urethrotomy followed by a cystolithotomy was performed after conditioning the patient.

No additional exploration could be carried out to determine the nature of the lithiasis due to lack of financial resources of the patients and also the lack of technical facilities.

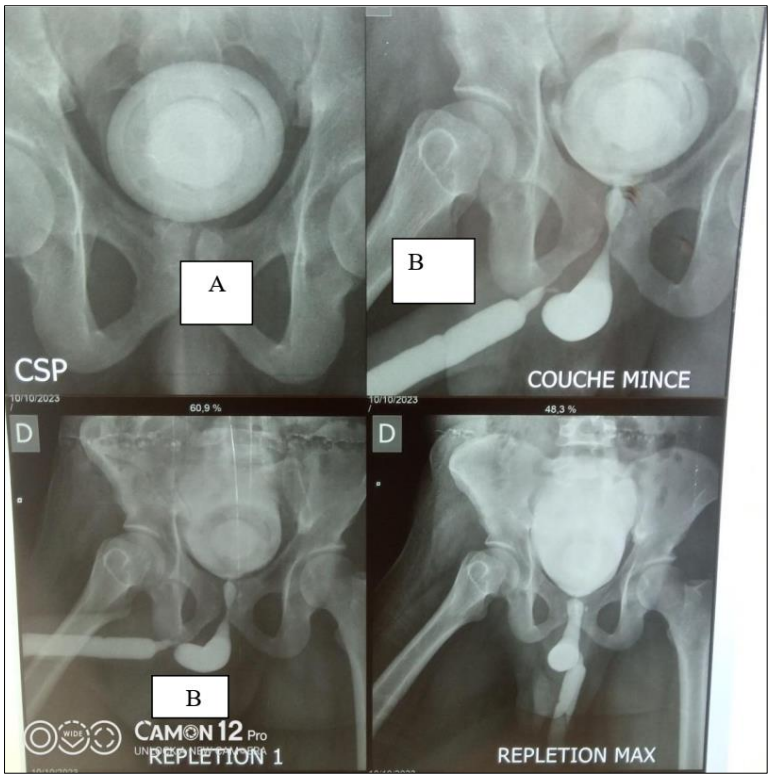

Figure 5: A (X-ray of the pelvis showing opacity in the bladder area)
B (urethrogram showing urethral stenosis)

Figure 6: giant bladder lithiasis of 158g

Comments

Bladder stones represent approximately 5% of all urinary stones [3]. They are common in developing countries, rare in industrialized countries and exceptional in the absence of associated lower tract pathology.

In humans, urinary stasis is the essential factor favoring the formation of these lithiasis. This urinary stasis is often the consequence of cervicoprostatic or urethral obstruction or a neurological bladder [5]. This is the case with our patients. In fact, the first and second had sclerosis of the bladder neck and the third had urethral stenosis. The key factors which favored the growth of these stones to the definitive sizes at which we discovered them are due to the delay in consultation. This delay could be linked to the negligence of patients, their lack of financial means, as well as the insufficiency of the technical platform and qualified personnel. Patients were content with traditional symptomatic treatment and repeated catheterization during urinary retention in their local health centers.

Our treatment consisted of stone extraction by cystotomy. Currently, surgical treatment of bladder stones involves extracorporeal lithotripsy and fragmentation during cystoscopy [8]. Cysthotomy, however, remains the recommended indication for large bladder stones such as those presented by our 3 patients [8]. The overall management of urolithiasis always includes a component on the prevention of recurrence. This section takes into account the etiology and includes general health and diet measures and measures applicable to each type of stone [8, 9].

CONCLUSION

Bladder lithiasis remains common in Mopti province of Mali. However large bladder stones are exceptional. They lead to a significant alteration in the quality of life of patients. Their constitution extends over several years and can be favored by social and cultural beliefs, with certain patients consulting late for questions relating to the genital sphere.

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