International Journal of Surgery Case Reports 95 (2022) 107258

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.elsevier.com/locate/ijscr

Case report

Giant bladder lithiasis: A case in Togo

T.B. Essobiyou [a,*], M. Issa [b], E.A. Leloua [c], K. Tengue [c]

[a] General Surgery Department, Dapaong Regional Hospital Center, Dapaong, Togo
[b] General Surgery Department, Sylvanus Olympio University Hospital Center, Lome, Togo
[c] Urology Department, Sylvanus Olympio University Hospital Center, Lome, Togo

ARTICLE INFO

Keywords:
Lithiasis
Bladder
Giant
Cystolithotomy

ABSTRACT

Background: Giant bladder stones are mostly found in developing countries. They are associated with a delay in diagnosis in these settings. We report a case discovered in a regional hospital in Togo.
Case presentation: He was a 64 years old farmer. He arrived at the hospital with acute urine retention. Cystotomy of evacuation allowed the discovery of a giant bladder stone of 230 g. He had his lithiasis removed.
Conclusion: The diagnosis and management of these giant lithiases remains a major challenge in Africa where poverty is a major obstacle.

1. Introduction

Bladder lithiasis is a common condition [1,2]. While the main contributing factor is urinary stasis of neurological or cervicoprostatic origin in men, in women, bladder lithiasis is a complication of vesico-vaginal fistulas [1]. In general, these stones are rarely large and develop over many years [1,2]. Large stones up to 100 g are called giant lithiasis and require cystolithotomy [1]. These giant bladder lithiases have already been the subject of work notably by Konan and al in Ivory Coast, Ouédraogo and al in Burkina-Faso [1,2]. We report a case of giant bladder lithiasis discovered in a regional hospital of Togo.

2. Case report

He was a 64 years old patient, farmer, living 620 km from Lomé, received at the surgical emergency room for acute retention of urine. Questioning revealed previous episodes of hypogastric pain and signs of the lower urinary tract (pollakiuria, mictional burning, dysuria), all dating back more than 3 years. His dietary habits included a diet rich in smoked and salted meat and dairy products. He did not report a history of renal colic. Physical examination revealed a painful, dull hypogastric swelling related to the bladder. The rectal exam was normal. No imaging (CT scan and ultrasound) was performed due to their emergency unavailability. Attempted trans urethral catheterisation was unsuccessful and a drainage cystotomy was indicated. The preoperative emergency check-up showed a haemoglobin level of 14.7 g/l, a uraemia of 0.1 g/l, and a creatinemia of 13 mg/l. The operation was performed by a senior general surgeon. Under spinal anaesthesia, a suspubian approach was performed. After cystomomy, we discovered a voluminous lithiasis enclosed in the bladder neck. The bladder had a thickened wall and macroscopically healthy mucosa consistent with a struggle bladder (Fig. 1). We removed the stone and placed an indwelling trans urethral bladder catheter for 10 days. Intraoperative exploration revealed a patent bladder neck and no prostatic hypertrophy. Postoperative care included analgesics by paracetamol (1 g every 8 h) and nefopam (20 mg every 8 h) and antibioprophylaxis by amoxicillin and clavulanic acid (1 g every 8 h). The stone was rough and porous in places, measured approximately 4 cm × 6 cm and weighed 230 g (Fig. 2). No further investigations were performed due to the patient's financial difficulties. The postoperative course was straightforward and the patient left the hospital on the 3rd postoperative day. The patient was lost to follow-up after 1 month.

3. Discussion

Bladder dysfunction seems to be the prerogative of poor populations where it remains endemic [1]. This explains its increased incidence in African populations. These lithiases present well-known favouring factors. In men, factors causing urinary stasis are incriminated (urethral stenosis, cervicoprostatic obstruction, neurological bladder) [1]. In women, bladder lithiasis is more likely to occur during vesico-vaginal fistulas [1]. In addition to these factors, a diet rich in protein, salt and dairy products is important [2]. In our patient, recurrent urinary tract infections associated with a diet rich in salt and dairy products were the

* Corresponding author.
E-mail address: tamassi2343@outlook.com (T.B. Essobiyou).

https://doi.org/10.1016/j.ijscr.2022.107258
Received 3 May 2022; Received in revised form 24 May 2022; Accepted 28 May 2022
Available online 31 May 2022

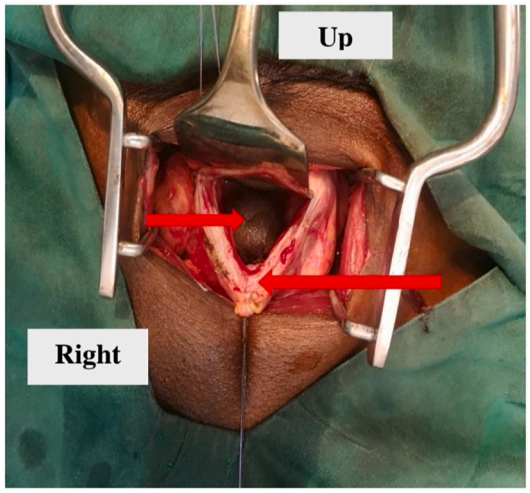

Fig. 1. Surgical view of cystolithotomy with evidence of a thickened bladder wall (long arrow) and bladder lithiasis (short arrow).

Fig. 2. Bladder stone after removal.

main incriminating factors.

The formation of giant lithiasis requires many years of evolution [1,2]. In Africa, poverty and the resulting delay in consultation could explain the high number of these cases [2].

The management of urinary lithiasis is twofold. Firstly, it is curative by removing the stones and secondly, it is preventive to avoid recurrence [2]. Curative treatment of giant calculi is carried out immediately by cystolithotomy [1]. This was the case in the management of our patient. Prevention in our case focused on diuresis treatment and measures to prevent sexually transmitted infections due to the patient's difficulties in adapting his diet.

To avoid these pathologies, it would be necessary to improve the health education of the population in order to reduce considerably the delays of consultation. Also, any urinary symptoms seen in hospital should be investigated appropriately to promote early diagnosis. The best approach to achieving these objectives is through good communication between carers and patients.

4. Conclusion

Giant bladder lithiasis is a common condition in Africa because of the delay in consultation but also because of the frequent association of favouring factors. Their diagnosis and management remains a major challenge in Africa where poverty is a major obstacle. This manuscript was written according to the rules of the SCARE [3].

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Provenance and peer review

Not commissioned, externally peer-reviewed.

Ethical approval

The study protocol fulfilled the requirements by the Hospital Ethics Committees and was approved.

Funding

The authors declare they have received no funding for the preparation of this document.

Guarantor

ESSOBIYOU Tamassi Bertrand.

Research registration number

1. Name of the registry: Not applicable
2. Unique identifying number or registration ID: not applicable
3. Hyperlink to your specific registration (must be publicly accessible and will be checked): not applicable.

CRediT authorship contribution statement

The study design and data acquisition were done by ETB. IM and LEA carried out the literature review. The manuscript was written by ETB, IM and TK. All the authors participated in the revision of the manuscript.

Declaration of competing interest

The authors have no financial, consultative, institutional, and other relationships that might lead to bias or conflict of interest.

References

[1] P.G. Konan, Giant bladder lithiasis. About two cases at the CHU of cocody, Rev. Afr. Urol. Androl. 1 (8) (2017) 376–380.
[2] S. Ouedraogo, M.T. Traoré, B. Kirakoya, Giant bladder lithiasis : about 2 cases, Afr. J. Urol. 22 (4) (2016) 289–292.
[3] R.A. Agha, T. Franchi, C. Sohrabi, G. Mathew, for the SCARE Group, The SCARE 2020 guideline: updating consensus Surgical Case Report (SCARE) guidelines, Int. J. Surg. 84 (2020) 226–230.