

Complex Inguinoscrotal Hernia Containing the Right Colon, Omentum, Small Intestine and Bladder: About a Case and Review of the Literature

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Abstract

Background: Hernial pathology is frequent in digestive surgery and a problem of medico- surgical management. The hernial sac often includes the great omentum, slender handles, the caecum. Bladder horn incarceration or the total migration of the bladder is exceptional.

Observation: We report the observation of a large neglected right inguinoscrotal hernia with complex contents (appendix, ascending colon, small intestine, omentum, and bladder) evolving for 20 years in a 54 years old patient seen in a context of fairground surgery at the Covè district hospital.

Conclusion: Early consultation for the hernia would reduce the occurrence of historical hernias and promote adequate care.

Keywords: *Historical Inguinoscrotal Hernia; Bladder Hernia; Neglected Hernia*

Introduction

Although inguinal hernias are common, hernia of the bladder in the hernial sac is rare, being observed in 0.5 to 5% of inguinal hernias [1,2]. Bladder hernia occurs mainly in obese men aged over 50 years and in hernia of the right side. Until 2018, approximately 120 cases have been described [1]. Inguinal hernia is defined by the passage of abdominal or pelvic contents through the inguinal orifice [3,4]. Large inguinal hernias are common in Africa [5]. We speak of the inguinal bladder hernia in case of presence of bladder in the hernial sac. It is a rare pathology most often discovered intraoperatively or on imaging [6]. It was described for the first time in 1951 by Levine [7]. Inguinal hernia of bladder may be partial or total, the total bladder migration in inguinoscrotal hernia can provide complications such as dysuria, bladder and ureteral reflux, hydronephrosis, pyelonephritis, renal failure.

We report the observation of a patient with a large inguinoscrotal hernia with complex contents containing the right colon with the coeco- appendix, the small intestine, the great omentum and the bladder.

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Clinical Observation

It was 54 years old patient, farmer, with no particular medical and surgical history, who consulted as part of a fairground surgical mission for a large painless right inguinoscrotal hernia evolving for several years, without associated lower urinary tract symptoms or digestive transit disorders.

On physical examination, the patient with good condition, the abdomen was flat with the presence of a large right inguino-scrotal swelling, partially reducible painless and impulsive to cough reaching the upper 2/3 of the ipsilateral thigh. On rectal touch, prostate was estimated of 30 g, with smooth surface and presence of median groove.

The preoperative biological assessments were normal. The ultrasound of the abdomen and the preoperative CT scan were not performed.

A cure for the inguinoscrotal hernia was performed under spine anesthesia through the inguinal and median approach straddling the umbilicus. The hernial sac contained the right colon with caeco-appendix, great omentum, small intestine and bladder. Hernial management according to Shouldice was performed, fixation of the ascending colon, appendectomy. Postoperative follow-up was simple.

The approach was initially inguinal with an incision of about 5 cm.



Figure 1: Large right inguinoscrotal hernia.

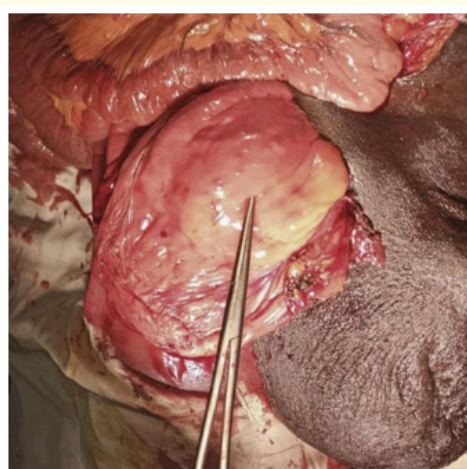


Figure 2: Bladder contained in the hernial sac.



Figure 3: *Hernial sac contents; caeco-appendix, ascending colon, small intestine and omentum.*



Figure 4: *End of intervention with total reintroduction of hernial contents.*

Discussion

Functional discomfort engendered by large hernias in daily activities is the main reason for consultation [3]. Large inguinoscrotal hernias, known as tropical hernias, are rare in young subjects, generally due to early consultation and adequate therapeutic management [8]. The contents of the hernial sac in case of sliding hernia may include caeco-appendix, sigmoid colon, small intestine, omentum or other structures like the bladder. The bladder inguinoscrotal hernia only represents only 1 to 5% of inguinal hernias and occurs mainly after the fifth decade, with a morbidity of 1 to 4%, affecting men especially obese 10 times more than women. Outside sex male, it is suggested

that factors such as obesity, weakened tone of the bladder and of the abdominopelvic wall and bladder obstruction with distention are responsible for this disorder [2]. The majority of patients with bladder hernias are asymptomatic and the diagnosis is made intraoperatively [9]. This was the case met in our patient by the discovery of the bladder in the hernial sac without lower urinary tract symptoms.

Although small bladder hernias remain asymptomatic, patients with large bladder hernias generally complain of scrotal edema, decreased force of the jet during urination, dysuria, urination interspersed by manual compression of the hernia and decrease in scrotal edema after urination, called mery's sign [10]. Oruc., *et al.* found in 2003 that less than 10% of bladder hernias have been diagnosed in preoperative, but during 10 last years, nearly 60% have been diagnosed [9]. We can explain this by the more frequent use of imaging in initial assessing of hernia of the groin, in particular the scanner [11].

Preoperative ultrasound, CT scan, magnetic resonance imaging, and cystography are considered as effective imaging techniques and may reduce the rate of intraoperative bladder damage. Ultrasound is the most accessible and the most profitable method, showing a hypoechoic mass protruding from the bladder to the scrotum through the inguinal canal. Voiding cystography is considered as the best imaging technique, demonstrating a dog's ear shaped bladder in the scrotum; cystoscopy can be used for evaluation of the prostate and in case of gross hematuria [2]. For our patient, neither the ultrasound nor the scanner was performed for the purpose of exploration.

The care of large hernias behaves significant morbidity and mortality, essentially related to the forced reduction of bowel handles in a long uninhabited abdominal cavity [12]. Actually, laparoscopy allows excellent abdominal exploration and a minimally invasive approach to this parietal deterioration. This approach allows the release of adhesions and/or flanges, essential for the reduction of the hernial content [7]. However, surgical management of bladder hernias by open surgery is preferred to laparoscopy. The patient was operated without prior specific preparation. Nevertheless, a digestive preparation by a diet low in fiber and a preoperative fasting, and during operative time a partial omentectomy to decrease the volume of the organs to be reintroduced in the abdominal cavity, were performed. In our patient the appendix was found engulfed in other elements of the hernial sac and an appendectomy was performed. However, as specified above, our patient was seen as part of a fairground surgery mission in an area hospital where the technical platform available could not meet these rules, hence the choice of open surgery according to Shouldice.

Note that no postoperative respiratory complications were objectified in early postoperative.

Conclusion

Precocity of consultation would reduce the frequency of historical inguinal hernias and thus allow easy surgical management. The creation of mutual health insurance would promote access to quality care.

Author's Contribution

MMA, BKG, MDA: Conception of the subject, data collection, analyzing and writing of the manuscript

NG, MVM, HJMF: Data collection and analysis, writing and reading of the manuscript

ADJ: Writing of the manuscript and validation of the study: avakoudjoj@gmail.com

Conflicts of Interest

The authors declare no conflict of interest, the article being read and approved by all.

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