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CASE REPORT

Acute scrotum in setting of acute pancreatitis

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SUMMARY

Acute scrotum is a urologic emergency with many aetiologies. Acute scrotum in setting of acute pancreatitis is a rare occurrence and results from an effusion of pancreatic juices into the inguinal canal along a retroperitoneal tract. Knowledge regarding the existence of this obscure condition is essential for its diagnosis. It is thus important for medical professionals, particularly internists, surgical trainees and emergency physicians, to be aware of the condition and the options for its management.

BACKGROUND

This case is an unusual and rare complication of a common clinical disease. The obscurity of the condition and reserved literature on the subject limits meaningful counsel to the patient. Even simple questions such as the expected course of recovery in the short term and the effect of the condition on fertility potential in the long term are hard to answer. It is therefore critical to involve the patient in the decision-making process early, provide known facts about the disease process openly and honestly, listen to what the patient wants and why, and navigate to a treatment plan together. Our case report may be of value to physicians should they come on a similarly obscure situation.

CASE PRESENTATION

A 33-year-old man with a history of alcohol abuse was brought to the emergency department with diffuse abdominal pain and vomiting. The vomiting was non-bilious and without blood. There was no associated diarrhoea, and the family members who had shared the same meal as the patient had no symptoms. He did not have other symptoms. He had never experienced such symptoms before. His last drink was a day ago, and on average drank half a pint every other day of the week. The patient did not have any other health concerns. Surgical history was notable for appendectomy in teenage. Physical exam revealed tachypnoea and tenderness in upper abdominal quadrants without peritoneal signs. With concern for acute pancreatitis, lab and imaging workup was initiated (see below). The patient was admitted to Hospitalist Service for observation.

Overnight, the patient developed sudden, severe pain in his left scrotum—the urologic surgery service was consulted. Patient interview did not reveal any additional information regarding recent trauma, or prior urinary tract or sexually transmitted infections. Physical exam revealed tender, diffusely swollen, erythematous left scrotum with minimal skin changes.

Tenderness tracked along the spermatic cord. The testicle was not high riding. There was no testicular mass or hernia. Urinalysis and scrotal ultrasonogram were ordered (see below).

INVESTIGATIONS

Lipase was elevated at 2305 IU/L (reference range, 0–82 IU/L), white cell count was elevated at $12.7 \times 10^9/L$ (reference range, 4–11 $\times 10^9/L$) and CT of the abdomen-pelvis was consistent with mild interstitial oedematous acute pancreatitis. Other labs were within limits.

Urinalysis was bland. Scrotal ultrasonogram revealed symmetrical blood flow to both testes with a complex hydrocele on the left.

DIFFERENTIAL DIAGNOSIS

- ▶ acute scrotum from acute pancreatitis
- ▶ testicular torsion
- ▶ epididymo-orchitis.

TREATMENT

The patient was taken to the operating room for acute scrotum within an hour of urologic consultation. Scrotal exploration of the affected side revealed oedema of the spermatic cord, dark-golden free fluid around the parietal tunica vaginalis and reactive hydrocele. There was no torsion. Lord's method was employed for hydrocele repair. The free fluid was sent for chemical, bacteriological and cytological examination. A washout of the scrotal cavity was performed. The wound was closed primarily.

OUTCOME AND FOLLOW-UP

In the short term, there was a dramatic improvement in patient's scrotal symptoms. He reported much improved pain on day 1 after surgery. Lab testing revealed high levels of amylase in the free fluid; other tests were negative. The patient was discharged home on day 2 from surgery, after his abdominal symptoms had improved and oral intake normalised.

In the long term (at 18 months), the patient remained free of symptoms, and was able to father a newborn boy.

DISCUSSION

Acute scrotum is one of few urologic emergencies. Common causes include testicular torsion, epididymo-orchitis, trauma, hernia or testicular cancer. Unusual causes include cord torsion in the inguinal canal and acute scrotum due to intra-abdominal conditions in patients with patent processus vaginalis.¹



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Unusual association of diseases/symptoms

Our patient had an atypical presentation for acute scrotum, and a literature search for ‘acute scrotum in setting of acute pancreatitis’ revealed a collection of case reports. These reports seemed to propose a conservative management—inpatient monitoring, on average between 7 and 10 days, with serial scrotal exams and repeat imaging as necessary.^{2 3} However, a closer examination revealed that none of these published reports had data on long-term, meaningful endpoints such as risk of testicular necrosis, infectious complications, and preservation of the viability of the testicle and fertility potential. We thus provided the patient an unbiased interpretation of the literature and discussed with him his preferences. Given the uncertain course of conservative management and the desire to maintain fertility potential, our patient decided to proceed with surgical exploration. As noted before, the patient’s scrotal symptoms alleviated within 24 hours of surgery. This is in contrast to the published literature where the patients managed conservatively invariably had a protracted clinical course.^{2 3} Moreover, our patient who did not have children at time of his presentation was able to father a baby boy by his 18-month follow-up. We agree that all these associations may be anecdotal. However, valid rationales do exist for them. There is no surprise that a surgical washout would improve local symptoms and hasten convalescence by removing the inflammatory insult. Regarding fertility, it has been shown that testicular injury, in the long term, can lead to infertility via mechanisms of autoimmunity,⁴ and it is not unreasonable to assume that the shorter the duration of contact between the pancreatic fluids and

the testicle, the lower the chances of testicular injury. In the end, we believe that via a transparent discussion with the patient in face of limited knowledge we were able to afford the patient his best chance to achieve his goals.

Lastly, in an era of value-driven care,⁵ the cost benefit of a treatment should not be ignored. It may seem from a cost perspective that surgical exploration may be the costlier option; however, this should be balanced against the shorter hospital stay, fewer imaging studies and lab tests, and last but not the least, the comfort of the patient. A day in a hospital in the USA on average costs \$1950, scrotal surgery costs \$8500 and a CT scan costs \$950. In line with this, it has been shown that judicious use of surgery is associated with decreased overall medical expenditure.⁶

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REFERENCES

- 1 Pogorelic Z, Mustapić K, Jukić M, *et al*. Management of acute scrotum in children: a 25-year single center experience on 558 pediatric patients. *Can J Urol* 2016;23:8594–601.
- 2 Skouras C, Skouras T, Pai M, *et al*. Inguinoscrotal extension of a pancreatic collection: a rare complication of pancreatitis—case report and review of the literature. *Updates Surg* 2013;65:153–9.
- 3 Lee AD, Abraham DT, Agarwal S, *et al*. The scrotum in pancreatitis: a case report and literature review. *JOP* 2004;5:357–9.
- 4 Kukadia AN, Ercole CJ, Gleich P, *et al*. Testicular trauma: potential impact on reproductive function. *J Urol* 1996;156:1643–6.
- 5 Cassel CK, Guest JA. Choosing wisely: helping physicians and patients make smart decisions about their care. *JAMA* 2012;307:1801–2.
- 6 Xu T, Hutfless SM, Cooper MA, *et al*. Hospital cost implications of increased use of minimally invasive surgery. *JAMA Surg* 2015;150:489–90.

Learning points

- ▶ Acute scrotum can present as a complication of acute pancreatitis.
- ▶ Testicular torsion must always be ruled out based on clinical exam and scrotal ultrasonography.
- ▶ Management may vary from observation to scrotal exploration and should be guided by patient age and desires.

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