Acute scrotal pain as sole presentation of acute pancreatitis

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**Abstract**

Pancreatitis has a myriad of different presentations although commonly presents with epigastric pain radiating to the back, nausea and vomiting. There are five case reports in the English literature of scrotal pain and swelling in severe alcoholic pancreatitis, two of which underwent surgical exploration. We present the first case of mild pancreatitis presenting with scrotal pain in the absence of any other symptoms or signs. We conclude that in any patient with unexplained scrotal pain, even in the absence of physical signs the possibility of pancreatitis should be considered.

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**1. Introduction**

Pancreatitis has a myriad of different presentations although commonly presents with epigastric pain radiating to the back, nausea and vomiting. There are five case reports in the English literature of scrotal pain and swelling in severe alcoholic pancreatitis, two of which underwent surgical exploration. We present the first case of mild pancreatitis presenting with scrotal pain in the absence of any other symptoms or signs.

**2. Case report**

A 44 year old male presented to the Emergency Department with acute scrotal pain. He had no associated urinary or bowel symptoms and no groin lumps. He was evaluated by his general practitioner (GP) prior to admission where an urgent ultrasound of his scrotum was reported as normal and urinary tract ultrasound noted a fatty liver but was otherwise normal.

At presentation, he complained of severe pain in his scrotum. There was no associated fever, nausea, vomiting, urinary or bowel symptoms and no history of trauma. He had a past medical history of a single episode of alcoholic pancreatitis 10 years previously with no subsequent symptoms. He estimated his current alcohol intake as 60 units per week.

On examination he was afebrile and haemodynamically stable. There was no visible bruising or discoloration of the abdomen. His abdomen, which was not distended, was soft with no tenderness, guarding or rebound tenderness. Bowel sounds were normal. There were no clinically demonstrable hernias. The scrotum appeared normal and was non-tender with no bruising or visible oedema. Both testicles felt normal. Digital rectal examination revealed a normal sized, non-tender prostate.

Blood tests revealed an amylase of 636 U/L (20–105), CRP of 46 mg/L (<10) and WCC of 13.6 × 10.9/L (3.8–11.0). Arterial blood gas showed a mild respiratory alkalosis and chest x-ray was normal. He was scored as 3 (mild pancreatitis) using the modified Glasgow score.

CT scan of the abdomen revealed inflammatory changes of the body and tail of the pancreas and a thin rim of fluid indicating acute pancreatitis. He was treated conservatively with intravenous fluids, analgesia, antibiotics and a proton pump inhibitor.

The patient continued to improve, his scrotal pain resolved and he was discharged.

**3. Discussion**

The common differential diagnoses of acute scrotal pain include torsion of testes or hydatid of Morgagni, epididymo-orchitis, strangulated hernia and epididymal cyst. Symptoms and signs can lead to the diagnosis but surgical exploration is sometimes necessary to exclude testicular torsion.

Pancreatitis as a cause of scrotal pain is extremely rare. There are just five case reports of pancreatitis associated scrotal swelling, all alcohol related pancreatitis. Three cases describe typical presentations of pancreatitis where scrotal pain and swelling developed later in the course of the disease [1–3]. In one of these cases the patient underwent surgical exploration to exclude testicular torsion. The two remaining case reports describe pancreatitis presenting with scrotal swelling, with one case undergoing emergency scrotal exploration [4,5]. The pancreatitis was reported to be severe in all five cases and all had significant scrotal physical signs.

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As pancreatitis progresses, fluid arising from the pancreas can leak into the retroperitoneal and peritoneal spaces. Fluid containing pancreatic exudates and debris can also track down the retroperitoneum into the inguinal canal and scrotum causing local irritation and/or fat necrosis [4].

This is the first case in which a patient with a mild pancreatitis presents solely with scrotal pain. The diagnosis of acute pancreatitis was serologically and radiologically confirmed. The chronological association and the complete resolution of scrotal pain when the pancreatitis resolved suggests a causal relationship. We assume that a minute amount of fluid rich in pancreatic exudate tracked down the spermatic cord, causing the pain. Unfortunately, the CT scan was only limited to the abdomen and therefore cannot confirm this.

In a 2012 British study, the cost of a single pancreatic enzyme level was £0.69 (lipase or amylase) and the cost of both amylase and lipase levels when measured together was £0.99 [6]. This is minimal compared with the ongoing costs of misdiagnosis or the expense of an unnecessary scrotal exploration.

We conclude that in any patient with unexplained scrotal pain, even in the absence of physical signs the possibility of pancreatitis should be considered. This should be investigated with serum amylase and/or lipase levels and appropriate imaging. Maintaining a high index of suspicion will avoid a delayed diagnosis, misdiagnosis and inappropriate surgery.

References

[1] A.R. Dennison, G.T. Royle, Acute pancreatitis—presentation as a discoloured lump in the groin, Postgrad. Med. J. (Case Reports) 60 (1984) 374–375.
[2] A.F. Zimin, V.N. Satsukevich, N.P. Molchanov, Acute pancreatitis with hemorrhagic flow into the scrotum, Vestn Khir Im I I Grek (Case Reports) 122 (1979) 47–48.
[3] S.B. Kim, B.K. Je, S.H. Lee, et al., Scrotal swelling caused by acute necrotizing pancreatitis: CT diagnosis, Abdom. Imaging 36 (2011) 218–221.
[4] K.E. O’sullivan, J.O. Larkin, M. Guiney, J.V. Reynolds, Necrotising pancreatitis presenting as a painful mass in the groin and sepsis, BMJ Case Rep. (2013), http://dx.doi.org/10.1136/bcr-2013-008726.
[5] M.A. Nazar, F.R. D’soouza, A. Ray, et al., Unusual presentation of acute pancreatitis: an irreducible inguinoscrotal swelling mimicking a strangulated hernia, Abdom. Imaging (Case Reports) 32 (2007) 116–118.
[6] D. Gomez, A. Addison, A. De Rosa, A. Brooks, I.C. Cameron, Retrospective study of patients with acute pancreatitis: is serum amylase still required? BMJ Open 2 (5) (2012) e001471.