

## Scrotal Abscess as a Complication of Perforated Appendicitis: A Case Report.

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### **Abstract:**

**Introduction:** Infectious complications are commonly seen following perforated appendicitis. Intra abdominal abscess, pelvic abscess and wound infection are the most common sites of infection. Scrotal abscess originating from appendicitis is a rare complication.

**Case presentation:** A 18-year-old male presented with history of a painful, red, and swollen right hemiscrotum for 2 days and right lower abdominal pain for one day, nausea and 2 episodes of vomiting. He had a temperature of 101F and a tender, red, and swollen right hemiscrotum. He was tender in the right lower abdomen. There was erythema over right inguinal region Blood tests showed a white cell count of 14,400/mm<sup>3</sup> and neutrophilia. Urgent right hemiscrotal exploration revealed about 5 ml of pus in the tunica vaginalis and a normal testicle. A midline incision identified the cause: a perforated retrocecal appendix. Appendectomy was performed, and both the abdomen and scrotum washed copiously with saline before closure. The patient made an uneventful recovery.

**Conclusion:** Acute appendicitis presenting with scrotal signs due to a patent processus vaginalis is an extremely rare clinical entity. To date, fewer than five such cases have been reported in the medical literature. It is, therefore, extremely important to be aware of this unusual clinical scenario, as only a high index of suspicion will enable prompt, successful management of both the appendicitis and the scrotal abscess.

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Date of Submission: 04-10-2019

Date of Acceptance: 21-10-2019

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### **I. Introduction**

Suppuration following acute appendicitis is well known complication seen in around 3–9% of patients following acute appendicitis [1]. Most commonly abscess formation occurs in the pelvis, between intestinal loops and in the subphrenic space. There are numerous reports concerning the presentation of appendicitis as a urologic problem. However, scrotal abscess originating from appendicitis has rarely been described. This may precede the diagnosis of acute appendicitis or as a postoperative complication of suppurative or perforated appendicitis.

We report a case of a 18-year-old male presenting as a case of scrotal abscess resulting from an underlying perforated appendicitis.

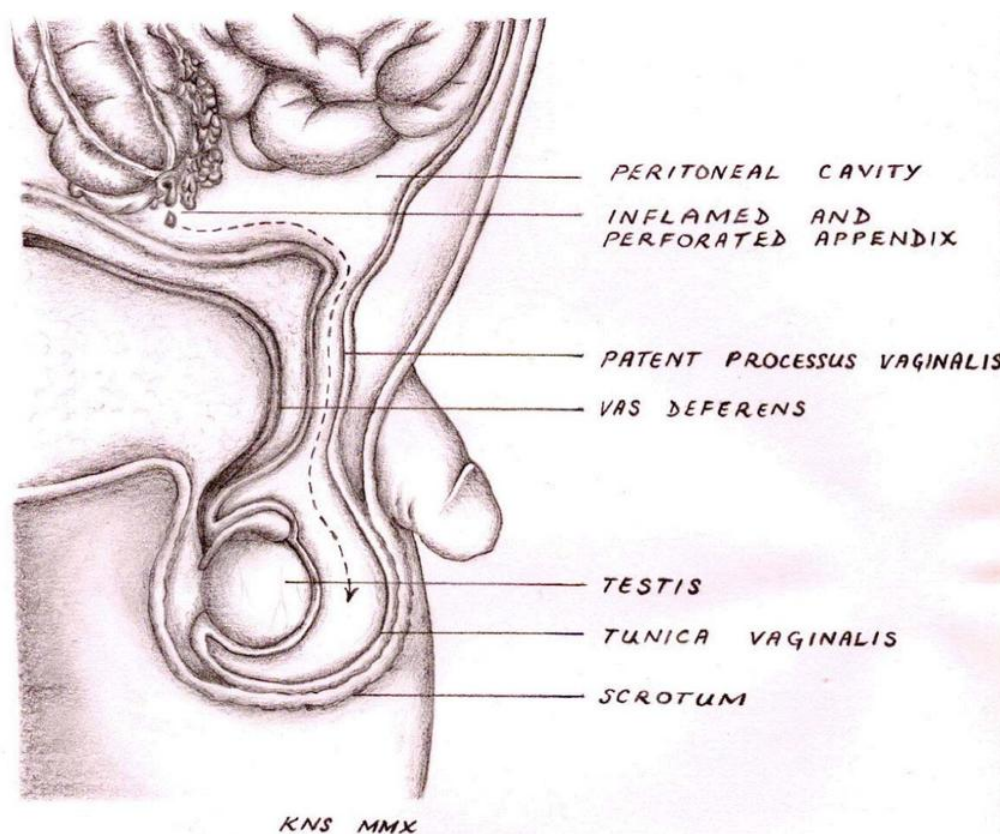
### **II. Case Report**

We report a case of a 18-year-old male who presented to us with a history of an acutely painful, red, and swollen right hemiscrotum for 2 days. No history of testicular trauma was elicited. He also complained of generalized abdominal pain, which was more in right lower abdomen for one day, nausea and 2 episodes of vomiting. He had a temperature of 101 F and pulse rate of 104 per minute. On examination, his right testicle was tender and elevated, and the right hemiscrotum, red and swollen. There was erythema over right inguinal regions. Abdominal examination showed tenderness in the right iliac fossa and suprapubic area. Blood tests showed a white cell count of 14,400/mm<sup>3</sup> and neutrophilia. Clinically, testicular torsion could not be excluded, and, on account of his young age and scrotal signs, a decision was made to explore the scrotum. At surgery, on opening the right tunica vaginalis, approximately 5 ml of pus was found, apparently coming down from the right groin. His right testicle appeared entirely normal. The scrotal abscess was drained, the area washed thoroughly with saline, and the scrotal wall closed in two layers with absorbable sutures. A midline incision was made to explore the abdomen. It was found that he had a perforated retrocecal appendix, resulting in an abscess extending into the pelvis. The appendix was excised and the abdominopelvic abscess drained. Thorough saline lavage was performed, and the wound was closed with insertion of an abdominal drain. Cultures revealed growth of E coli in the pus from both scrotum and abdominal cavity. He was given three days of postoperative

intravenous antibiotics. The patient made an excellent recovery and was well at clinic follow-up four weeks later.

### III. Discussion

Discussion The processus vaginalis is a developmental outpouching of the peritoneum that is present from around week 12 of gestation. In boys, it precedes the testis in its descent from the abdominal to the scrotal position and usually closes during the period from a few weeks before to a few weeks after birth. The portion around the testis remains as the tunica vaginalis. The processus vaginalis has been found to be patent in 80% to 95% of male newborns, the incidence then decreasing to 60% at one year, 40% at two years, and 15% to 37% thereafter [1,2]. A patent processus vaginalis can present as a hydrocele or congenital inguinal hernia. Scrotal abscess as a complication of acute appendicitis is a very rare clinical entity. Scrotum as an extension of the peritoneal cavity is very rarely considered as a site of abscess formation following appendicitis. The condition occurs when pus from suppurative appendicitis tracks down through a patent processus vaginalis into the scrotum (Figure 1).



**Figure 1:** Depiction of the path that pus from a perforated appendix follows en route to the scrotum.

To date, very few cases have been described in the literature. Scrotal abscess as a complication of appendectomy has been mentioned only very infrequently. A scrotal abscess occurring without a history of appendectomy, as happened in our patient, is even less common. The presentation of an acutely tender, red, and swollen testicle in a child inevitably raises the suspicion of testicular torsion. Surgical exploration in these cases should be done without delay if the correct diagnosis is to be corroborated and the viability of the testis ensured. Other possible causes of an acute scrotum include torsion of a testicular appendage, epididymo-orchitis, and incarcerated hernia. As an intra-abdominal cause for acute scrotal signs is an extremely unusual clinical scenario, a good deal of discernment and lateral thinking is required to diagnose and manage the patient properly, as it can be tempting to explore the scrotum alone without having a look higher. Ultrasound imaging of the abdomen and scrotum can help in the diagnosis [10] but is no substitute for a high index of suspicion. Moreover, ultrasound may not be available at certain hours during an emergency surgical procedure. Conclusion The possibility of an intra-abdominal abscess leading to the presentation of an acute scrotum secondary to a patent processus vaginalis should always be kept in mind. Thorough scrotal and abdominal lavage and removal of the source of sepsis are keys to successful management.

#### **IV. Conclusion**

Acute appendicitis presenting with scrotal signs is an extremely rare clinical entity.. It is, therefore, extremely important to be aware of this unusual clinical scenario, as only a high index of suspicion will enable prompt, successful management of both the appendicitis and the scrotal abscess.

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Ab Hamid Wani. "Scrotal Abscess as a Complication of Perforated Appendicitis: A Case Report." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 18, no. 10, 2019, pp 72-74.