

# Scrotal Abscess: An Unusual Complication of Perforated Appendix

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## Summary

Acute scrotal pain and swelling in children is commonly attributed to torsion of the testis or of the testicular appendage. However, following suppurative appendicitis, scrotal abscess secondary to a patent processus vaginalis must be considered.

**Key Words:** Scrotal abscess, Appendicitis

## Introduction

Torsion of the testis or testicular appendage is the most frequent cause of acute scrotal pain and swelling in children<sup>1</sup>. However, an inflammatory communicating hydrocoele with subsequent scrotal abscess formation must be included in the differential diagnosis for acute scrotal swelling following laparotomy for suppurative appendicitis<sup>2</sup>.

## Case Report

A 3-year-old boy presented with a high fever, lethargy, anorexia and vomiting for three days. On examination the child had a sinus tachycardia of 130, respiratory rate of 40 per minute, rectal temperature of 39°C and normal blood pressure. The abdomen was distended, firm, diffusely tender and without bowel sounds. Rectal examination revealed tenderness in the right side of the rectovesical pouch. The genitalia were normal with bilaterally descended testicles. Inguinal hernias were not present. The white cell count was 11,000 with 28 per cent band forms. Urine analysis demonstrated 2+ ketones, no bacteria and no cells. Abdominal X-rays showed dilated loops of small bowel without air fluid levels or free air, all consistent with paralytic ileus. Chest X-ray was normal.

The child was admitted to the paediatric ward. Dehydration was corrected in preparation for surgery. Ampicillin (100mg/kg/day), gentamicin (6mg/kg/day) and metronidazole (50mg/kg/day) were given preoperatively and continued postoperatively. An appendectomy was performed through a right lower quadrant, muscle splitting incision. Cloudy peritoneal fluid was present. The appendix was inflamed, with an area of focal necrosis near the tip, which had perforated.

The first three postoperative days were uneventful, with gradual clinical improvement and resolution of the child's fever and leukocytosis. On the afternoon of the third day, his mother noted a swollen, tender scrotum. On the morning of the fourth day, the scrotum was swollen and painful. The right testicle seemed enlarged and was exquisitely tender. The diagnosis of torsion of the

right testicle was considered, but because of the 12 hour delay between onset of symptoms and discovery, expectant management was undertaken.

Triple antibiotics were continued and the child was treated with ice packs to the scrotum and scrotal elevation. By the sixth postoperative day the white cell count was 15,000 with no band forms. The condition failed to improve and a scrotal ultrasound the following day showed scrotal wall thickening and right testicular enlargement without fluid collection. By the ninth postoperative day, the scrotum and the right testicle remained unchanged and the child was returned to the operating room for right hemiscrotal exploration.

Approximately 10 ml of pus was encountered within the tunica vaginalis. The tunica vaginalis was opened, revealing a normal testicle. A Penrose drain was placed into the abscess cavity. The drain was removed on the second postoperative day and an oral antibiotic, cefoperazone, 250mg three times a day was started on the third postoperative day. Culture of the pus grown *Escherichia coli* with the same resistance pattern as the *Escherichia coli* cultured at appendectomy. On the fourth day following scrotal exploration, the patient was discharged.

### Discussion

Torsion of the testis or testicular appendage is the most frequent cause of acute scrotal pain and swelling in children. However, intra abdominal problems may also have a scrotal presentation. Several case reports had documented perforated appendicitis presenting as scrotal abnormalities<sup>2,3</sup>.

In this particular case, it is apparent that a patent processus vaginalis was present which allowed the gravitation of intraperitoneal pus into the scrotum, resulting in the scrotal abscess.

There are numerous reports in the literature concerning the presentation of appendicitis as a urological problem<sup>2,3</sup>. Haematuria and abnormal urine analysis have been reported as signs<sup>1,3</sup>. Additionally, appendicitis has been reported as the cause for scrotal fistula<sup>1</sup>, postoperative pelvic abscess presenting as a scrotal abscess, intravesical fistula, and ureteral obstruction<sup>3</sup>. Scrotal abscess following acute, suppurative appendicitis has been rarely reported<sup>2,3</sup> although, as this case demonstrates, it may occur.

### References

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