

# Urologic Complication of Laparoscopic Appendectomy

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## ABSTRACT

Abscess formation after a ruptured appendix is a well-known phenomenon. Extra-abdominal complications are somewhat rare. Here we present an unusual urologic complication in a case of a perforated appendix and abdominal sepsis.

**Key Words:** Laparoscopy, Urology, Laparoscopic appendectomy, Scrotal abscess.

## CASE REPORT

A healthy 11-year-old prepubertal male presented to the emergency department with complaints of diffuse abdominal pain that had lasted for 24 to 48 hours. The patient denied nausea, vomiting, or anorexia. On physical examination, right lower quadrant tenderness was elicited with guarding. Genitourinary and inguinal examinations were normal. The patient was febrile to 101.9° F with an elevated leukocyte count. The urinalysis was within normal limits. Free intraperitoneal fluid was noted on ultrasound, and the patient was taken to the operating room for exploratory laparoscopy where a ruptured appendix was found. Diffuse purulence existed throughout the abdomen including in the subhepatic space. An appendectomy was performed followed by a rather vigorous saline lavage of the abdomen.

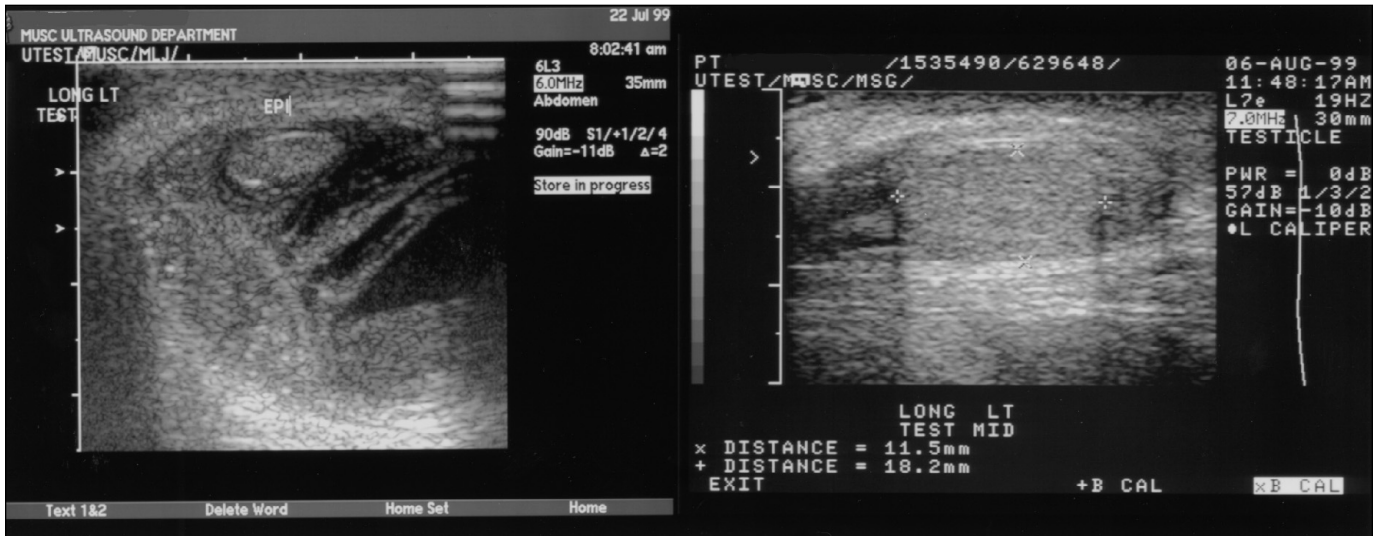
Postoperatively, the patient was maintained on broad-spectrum antibiotics and had a prolonged ileus requiring nasogastric decompression. He continued to have intermittent fevers, and a computerized tomography scan on the sixth postoperative day revealed no abscess. On the morning of the seventh postoperative day, the child complained of intense left scrotal pain. An examination revealed an enlarged, tense left hemiscrotum that was exquisitely tender to palpation. The left testicle could not be palpated. The right hemiscrotum and testicle were normal. Cremasteric reflexes were present bilaterally. The urinalysis was within normal limits. An ultrasound was performed that revealed normal flow to the left testicle and epididymis. However, a 3-cm loculated mass inferior to the testicle was also revealed (**Figure 1**). Review of the previously performed CT scan revealed a slightly widened inguinal canal on the left (**Figure 2**).

The patient was then taken to the operating room for exploration and debridement. The preoperative diagnosis was scrotal abscess secondary to microbial seeding via a patent processus vaginalis. The findings at operation included a pseudo-encapsulated, loculated abscess inferior to the testicle that was entirely within the tunica vaginalis. Doppler flow to the testicle was confirmed intraoperatively. The loculations were lysed and the abscess was drained.

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**Figure 1.** Preoperative (left) and follow-up (right) scrotal ultrasound of an 11-year-old male 1 week after a laparoscopic appendectomy.



**Figure 2.** Computed tomography scan of the abdomen and pelvis suggests patent processus vaginalis on the left.

The patient defervesced postoperatively, and he was discharged home after his ileus resolved. On outpatient follow-up, the patient was doing well with no abdominal or scrotal pain. The ultrasound revealed good flow to the testicle with complete resolution of the abscess (**Figure 1**).

## DISCUSSION

Minimally invasive techniques have revolutionized the diagnosis and treatment of abdominal disorders including the acute abdomen. Improved visualization and access to the entire abdomen make laparoscopy after a ruptured appendix increasingly attractive to general surgeons. An unrecognized or clinically silent patent processus vaginalis, however, can allow microbial seeding of the scrotum facilitated by the pneumoperitoneum.<sup>1</sup> A careful postoperative examination of the scrotum should document no pneumoscrotum, and, if found, serial examinations are necessary during the convalescence period. A review of the literature reveals only 2 previously reported cases of scrotal abscess following a laparoscopic appendectomy.<sup>2,3</sup> Awareness of this potential complication and early drainage after recognition are essential to prevent suppuration and damage to the testicle.

**References:**

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