## **Testicular Torsion Case Review, 2007**

Sharon Mace, MD, FACEP – Lead Author

Brief Summary: 16 yo male presents to ED with a complaint of "pain left testicle, nausea, vomiting." Physical examination reveals "quite uncomfortable"....but otherwise essentially normal physical examination including he is afebrile, the abdomen is "soft, bowel sounds present, nontender, nondistended, without hepatosplenomegaly, masses, pulsations, bruits, guarding, or rebound. There is specifically no increased discomfort to palpation in the left lower quadrant" and "genitalia: normal male, circumcised, with descended testes bilaterally, with normal lie. There are no scrotal abnormalities or particular testicular tenderness or cord tenderness, epididymal tenderness. They may be slight early inguinal hernias bilaterally, but no tenderness on coughing. No discharge is noted." Laboratory data (CBC, lytes, BUN, creatinine) are normal except glucose of 139. Urinalysis is trace protein but otherwise negative. He was given pain medications and antiemetics. An IVP was ordered (helical CT was not yet available). The patient has resolution of his symptoms and the mother declined the IVP since "his symptoms have improved and they have no insurance." He was sent home on pain medications and follow-up with urology and general practice. The recommendation was made to "make a follow-up appointment for him to see a physician sometime later this week." "He is welcome to return to the Emergency Room if he has increasing pain or related symptoms."

The patient had onset of scrotal redness, swelling, and pain 24 to 36 hours after his ED visit. They saw a family practice physician and urologist 3 days after the ED visit. The urologist's impression was epididymitis, although he recommended a nuclear scan to exclude testicular torsion. The mother again refused any further diagnostic studies.

Seven days after his initial ED visit, he was admitted to the hospital with ongoing symptoms. A nuclear scan revealed testicular torsion. He underwent unilateral orchiectomy and orchiopexy.

## **COMMENTS**

Since his physical examination was normal when seen in the ED and his symptoms resolved, this patient appears to have had intermittent torsion. Based on the clinical presentation with the patient having flank pain and inguinal pain, the ED diagnosis was "Acute left inguinal, flank and testicular pain with nausea and vomiting, most likely due to kidney stone." Although the diagnosis was incorrect, the ED course and plan was appropriate and within the standard of care. According to the literature, "Boys with intermittent complaints and normal evaluation at the time of presentation should have a follow-up evaluation within seven days unless pain recurs sooner. Unfortunately, intermittent torsion most often leaves no clinical trace, but on those occasions when intermittent torsion is suspected, consultation with or referral to urology is recommended." The patient's testes was likely viable and detorsed until the second episode of pain that occurred 24 to 36 hours later, when the torsion reoccurred. This patient was appropriately referred and seen by the urology specialist for a second episode of acute scrotal pain. At this time, a nuclear scan was indicated, but the mother refused. The urology specialist incorrectly diagnosed the patient with epididymitis. This is when the patient should have had the scan and the surgery. The mother's refusal to do the scan and the urologist's misdiagnosis lead to the loss of the testicle from the torsion.

The ED record including the history, physical examination, laboratory studies, course and plan was well documented. The diagnosis was incorrect and may have influenced the jury's decision. However, should the ED physician's plan been followed and the consultant made the correct diagnosis, it is probable that this adolescent would not have lost his testes. There should be greater culpability for the mother who refused diagnostic testing on two occasions and the urologist who diagnosed the patient.