

A Unique Case of Penile Injection Drug Use Leading to Orchitis

Pooja Saiganesh, Alexander J Kaye MD/MBA, Sarah Meyers DO, and Luis Alzate-Duque MD

Rutgers New Jersey Medical School

Background: The opioid epidemic has been a rising phenomenon for over 20 years. Recreational opioid users often take either intravenous (IV) or oral opioids. IV drug use is considered the highest risk for localized and systemic infections. IV opioids are commonly injected into the veins of extremities, however any vein with blood flow can be utilized. The following case is a unique presentation of orchitis secondary to IV heroin use in the dorsal vein of the penis.

Case Description: A 59 year-old man with a history of untreated HCV, hypertension, CKD stage 3B, chronic homelessness, polysubstance abuse (opioids, K2, cocaine, benzodiazepines, and alcohol), and major depressive disorder presented to the emergency department for two days of testicular pain. The patient was febrile, tachycardic, and hypertensive on presentation. Laboratory studies showed a leukocytosis to 20.4, and a urine toxicology screen positive for benzodiazepines and methadone. The urinalysis was within normal limits. The scrotal ultrasound demonstrated left testicular orchitis without abscess. Further history revealed that the patient used 10 bags of heroin daily through injection into his neck vasculature and more recently the penile dorsal vein 5 days prior to admission. While he reported new needles for each injection, he admitted to licking his needles and mixing heroin with tap water. He denied any recent sexually activity. The urine culture was positive for ESBL E.coli. Workup for mumps, gonorrhea, chlamydia, and bacteremia was negative. He was treated successfully with trimethoprim-sulfamethoxazole for 14 days and discharged to a shelter with follow-up in a methadone clinic.

Conclusion

This is the first documented case of orchitis secondary to ESBL E.coli resulting from injection heroin use into the dorsal vein of the penis. This case emphasizes the importance of careful history taking, especially in patients with a history of injection drug use.