Penetrating Injury from Horseshoe Crab Tail

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Horseshoe crabs belong to the Mero- 
tome class of arthropods.1 Three genera 
of these animals now reside in United 
States Atlantic coastal waters, in the 
Gulf of Mexico, and in the Asian Pa-
cific coasts ranging from Korea to the 
Indo-Pacific. These crabs can be up to 
3 feet long from the rostrum to the tip 
of the telson, which is articulated to the 
body and has a sharp point with nu-
merous spicules on its lateral surfaces. 
These animals are scavengers that plow 
through the sand and mud at the bot-
tom of the coastline in water up to 36 
feet in depth. The Delaware Bay, 
which has one of the most abundant 
concentrations of these animals in the 
world, is populated with Limulus polyphemus.1 A representative case his-
tory of injury caused by horseshoe crab 
follows.

A 55-year-old male experienced 
sudden penetrating pain in the left foot 
while walking on the beaches of the 
Southern Delaware coast. A foreign 
object was noted protruding from his 
foot and was identified by a lifeguard as

FIGURE 1. Tip of horse-
shoe crab tail seen on 
radiograph between third 
and fourth metatarsal 
bones.
the “spike” or tail of a horseshoe crab. The object was immediately removed on the beach, and emergency room care at that time consisted of soaks, tetanus toxoid, cefadroxil 1.5 g/day, and ciprofloxacin 1 g/day. Pain, erythema, and edema progressed over the next 24 hours with an oral temperature of 38.4°C. X-ray revealed retained foreign body fragments that were surgically removed, and the wound was packed (Figures 1 and 2). \textit{Vibrio alginolyticus, Enterobacter cloacae,} and \textit{Corynebacterium} species were isolated on culture. Intravenous ceftriaxone 100 mg every 8 hours, intravenous ceftriaxone 1 g every 12 hours, and doxycycline 100 mg every 12 hours were started, followed then by surgical closure of the wound. The postoperative course was uneventful.

Three major points are illustrated by the case. 1) A radiologic examination of the wound is necessary to locate this spine. 2) Surgical removal will be required because of the spicules on the tail. 3) Adequate bacteriologic isolation can only be done using media isotonic with the microenvironment of the injury (3% salt).

\textbf{REFERENCE}