

Procedural Information

Location: West Reading, PA, USA
Hospital: Reading Hospital
Physician: David Sacks, MD

Clinical Case Review 11

Providing manual control when sampling close to the vertebral artery

Case Description

Case history

64 year old man with a history of prostate cancer and lytic lesion in the right lateral mass of C1.

Biopsy details

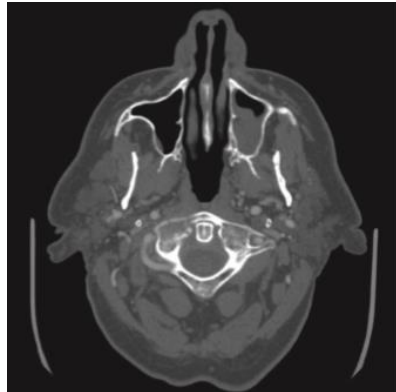
The patient was treated under general anesthesia to avoid motion. The vertebral artery was located using IV contrast. Using CT fluoroscopic guidance, the Bonopty[®] 12G Penetration Set was advanced through the posterior margin of C1 just inferior to the vertebral artery. A core biopsy was then performed with the Bonopty[®] 13G Biopsy Set. When only blood was obtained, a soft tissue core was obtained using a 16G biopsy gun. The patient was discharged the same day with no neurologic deficit.

Analysis of the samples

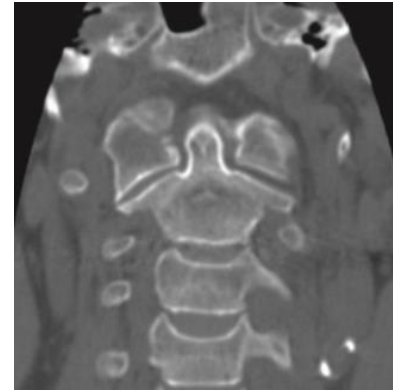
A small fragment from the soft tissue core revealed metastatic prostate cancer.

Comments

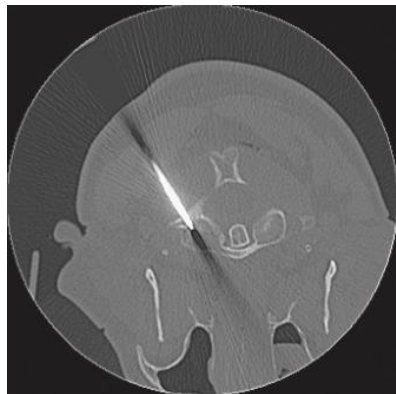
A manual drill, as provided with the Bonopty[®] Penetration Set, rather than an electric drill was chosen to avoid the risk of transmitting torque to the immediately adjacent vertebral artery. The Bonopty[®] Penetration Set allowed fine control of needle placement, avoiding the vertebral artery and penetrating dense cortical bone. The large gauge (12G) penetration cannula allowed use of a large gauge soft tissue needle to obtain a diagnostic sample of the lytic lesion.



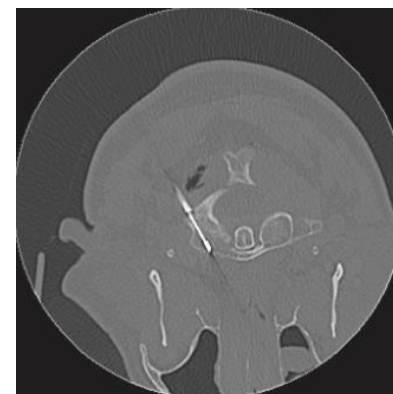
The axial contrast enhanced CT reveals the vertebral artery posterior to the right lateral mass of C1. A pathologic fracture is present



The coronal spine image demonstrates the lytic lesion on the right



Bonopty[®] 12G Penetration Set has been advanced through the cortex



Soft tissue biopsy needle obtains a sample from the lesion

Case and image courtesy of David Sacks, MD, Reading Hospital, West Reading, PA, US