

50-Year-Old Female with Pain Across Shoulder Blades Into Arms and Frequent Headaches



By Derrick Dupre, MD

Practice

NeuRepair Brain & Spine

Location

Trinity, FL

Area of Interest

My clinical interests focus on a wide variety of disciplines and techniques. Complex and minimally invasive spine surgery is a field in which I strive to offer the best care possible to patients. With the ever-evolving technologies and techniques available, I enjoy staying up to date and offer those interventions which are best suited and individually tailored.

Education

Medical School

Texas Tech University Health Science Center, Lubbock, TX

Neurosurgical Residency

Neurosurgery at Allegheny General Hospital, Pittsburgh, PA

Board Certification

Neurological Surgery: The American Board of Neurological Surgery



■ PATIENT HISTORY

This patient is a 50-year-old female who presented with neck pain, pain across the shoulder blades, and pain into the arm with occasional numbness and tingling and frequent headaches. She works as a medical biller and coder and spends frequent time at a computer. She has failed conservative measures including extensive therapy, lifestyle modifications, pain management, and injections.

The patient was found to have multiple levels of degenerative disc disease with the highest degree of stenosis at C6-7 which showed moderate central canal stenosis, severe left foraminal stenosis, and moderate right foraminal stenosis. There is posterior element buckling at C6-7, indicative of loss of height of the functional spinal unit.

There was slight retrolisthesis without any motion on flexion-extension at C6-7.

Radiographs and computed tomography demonstrate early formation of a ventral osteophyte without any significant foraminal or canal osteophytes.



FIGURE 1: Initial Lateral Radiograph

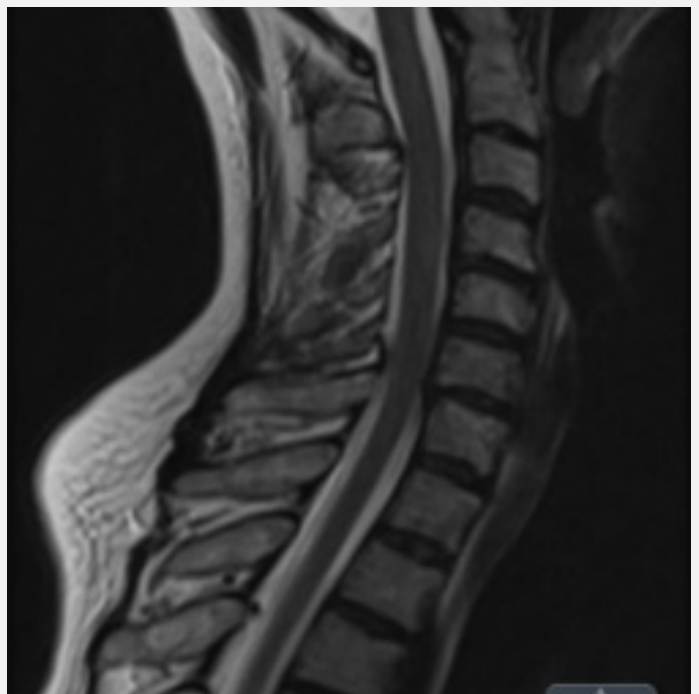


FIGURE 2: CT showing moderate central canal stenosis

■ OPERATIVE PLAN

Given the lack of significant osteophytes, consent was obtained for total disc arthroplasty. Initially, **prodisc C** was considered, however the patient has a history of lung disease as well as adverse anesthesia effects and hereditary coagulopathy, therefore the decision was made to switch from **prodisc C** to **prodisc C Vivo**.

The reason for this is the decreased operative time and safety. Reducing the number of times passing instruments in and out of the surgical field past the carotid sheath, bridging blood vessels, the esophagus and other soft tissue potentially

decreases the likelihood of injury. Additionally, less passes means less time, which results in less time-multiplied pressure on the esophagus and the paravertebral plexuses, that ultimately result in reduced postoperative dysphagia, reduced incidence and length of hoarseness, etc. Infection risk is also a consideration, as there are far less instruments passed from the scrub table into the operative wound, which in-and-of-itself will reduce the chances of inoculation. Finally, blood loss can be reduced by avoiding the keel cut into two of the vertebrae which is part of the **prodisc C** implantation technique.

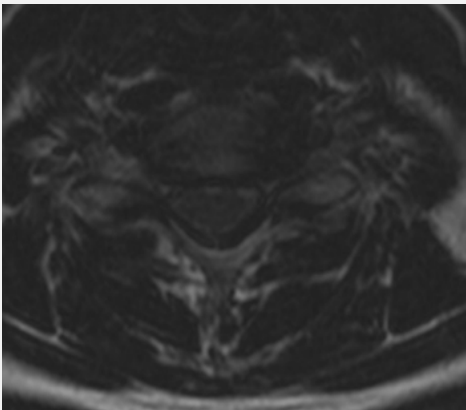


FIGURE 3: MRI showing left foraminal stenosis



FIGURES 4a, 4b: CTs showing early formation of ventral osteophyte without significant foraminal or canal osteophytes

■ DISCUSSION

Total operative time was 50 minutes. Patient was discharged home on postoperative day 0.

prodisc C Vivo implanted: 17x14x5mm

At the 6-week follow-up visit, the patient has excellent pain relief with resolution of radicular symptoms, headaches have also resolved.

An important take-away from this case is the addition of **prodisc C Vivo** to my toolkit for managing patients. This also provides me with an opportunity to decrease OR time and improve safety as well as lower potential infection risks due to shorter cases and fewer passages into and out of the surgical field.



FIGURES 5a, 5b: Six-week follow-up x-rays in Lateral (a) and A/P (b) views showing excellent mobility and positioning of the implant with **prodisc C Vivo**.