CASE STUDY | prodisc® C Vivo

58 Year-Old Female Radiology Technician with Chronic, Intractable Neck Pain, Right > Left Arm Radicular Pain, & Progressive Weakness

By David J. Yeh, MD

Practice
Central Coast Neurological Surgery PC, Sutter Health

Location
San Luis Obispo, CA

Area of Interest
Dr. David J. Yeh is a neurosurgeon in San Luis Obispo, California and is affiliated with multiple hospitals in the area, including Marian Regional Medical Center, French Hospital Medical Center, and Sierra Vista Regional Medical Center. He received his medical degree from Medical College of Georgia and has been in practice for more than 20 years.

Education

Medical School
Medical College of Georgia, Augusta, GA

Neurosurgery Residency
Medical College of Georgia, Augusta, GA

Board Certification
American Board of Neurological Surgery

30+ YEARS OF CLINICAL SUCCESS SINCE 1988

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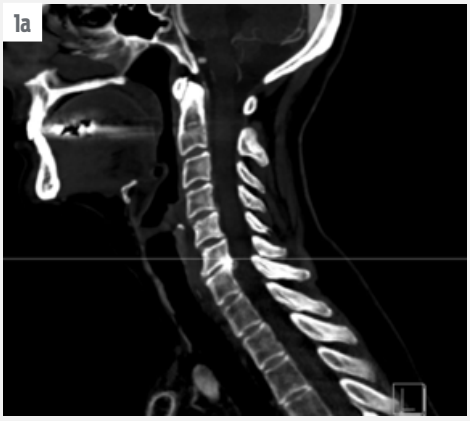
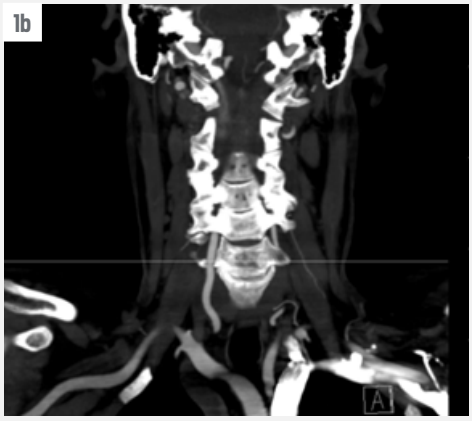
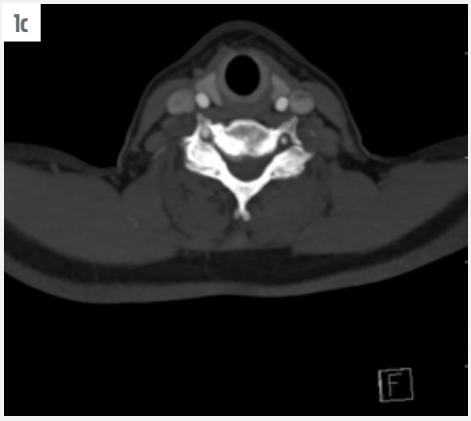
PATIENT HISTORY

This patient is a 58 year-old female radiology technician with chronic, intractable neck pain, right > left arm radicular pain, and progressive weakness. At one point her symptoms worsened so acutely, she presented to the emergency department for acute triage with cervical CT angiogram, which showed advanced spondylosis at the C6/7 level.

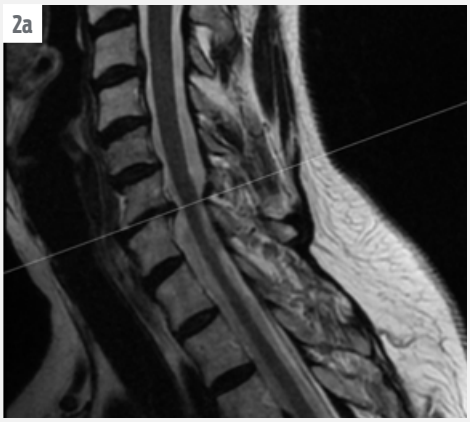
The combination of the chronic problem with acute worsening of symptoms required decompression and stabilization at C6/7. Typically, at this patient age, with this advanced level of spondylosis at the C6/7 level, I would proceed with an instrumented fusion. However, this patient was very active and wanted to optimize her quality of life as possible with this surgery

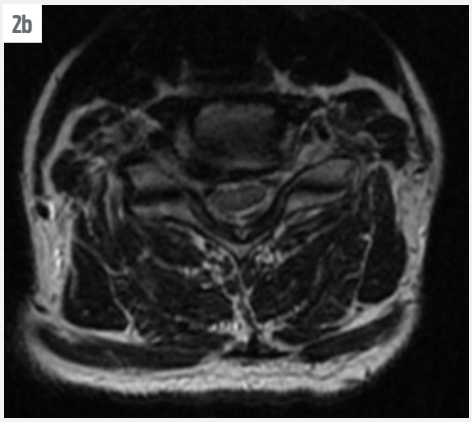






FIGURES 1a, 1b, 1c: CT arteriogram: right chronic foraminal stenosis with acute component of disk herniation at C67 with moderate degenerative disk disease and spondylosis.





FIGURES 2a, 2b: MRI: right herniated disk with advanced degenerative spondylosis at C6/7.

OPERATIVE PLAN

Patient underwent outpatient surgery procedure at our ASC (San Luis Obispo Surgery Center)—a 60-minute procedure with minimal blood loss. She was discharged to home 2.5 hrs after the procedure. She had immediate improvement in right arm strength, and progressive improvement in right arm pain and paresthesias—now 3+ months postop

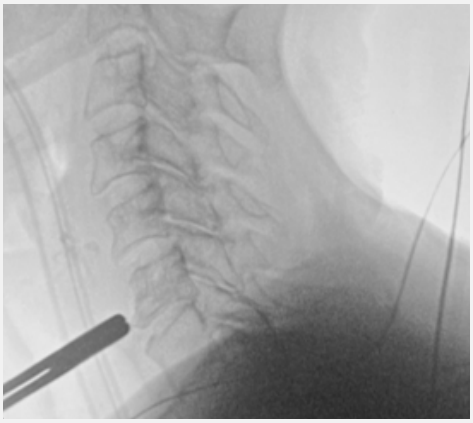
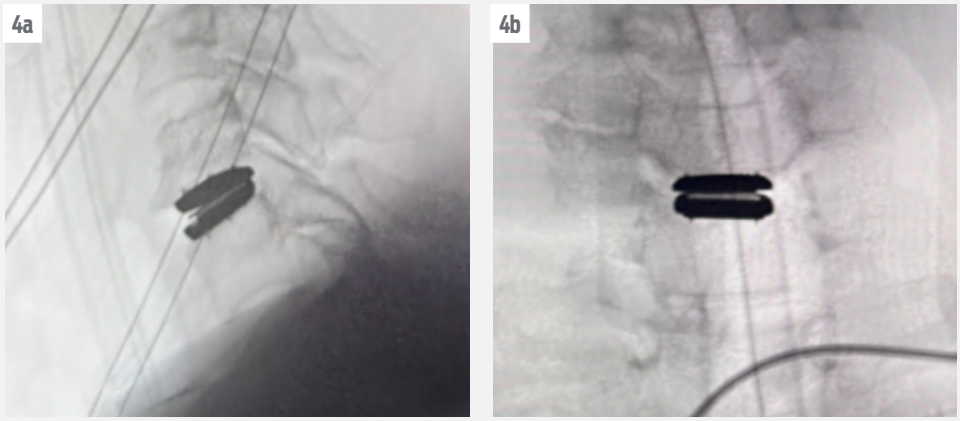


FIGURE 3: Operative level with significant disc height loss.

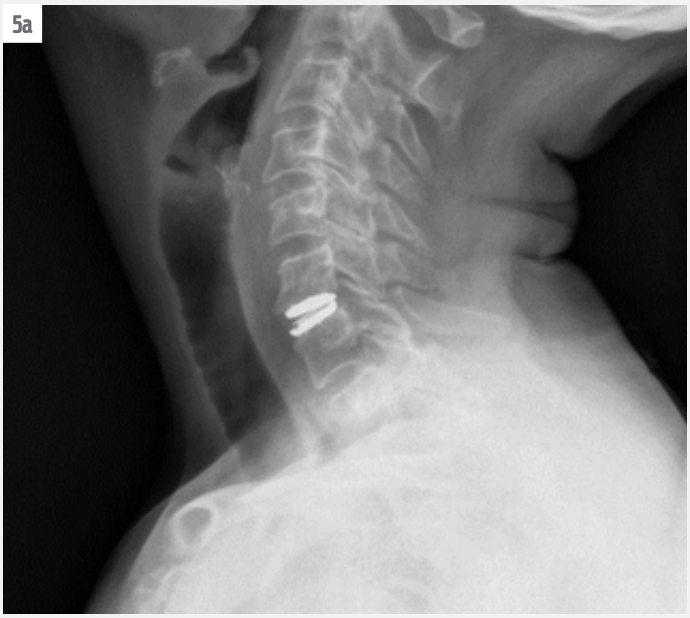


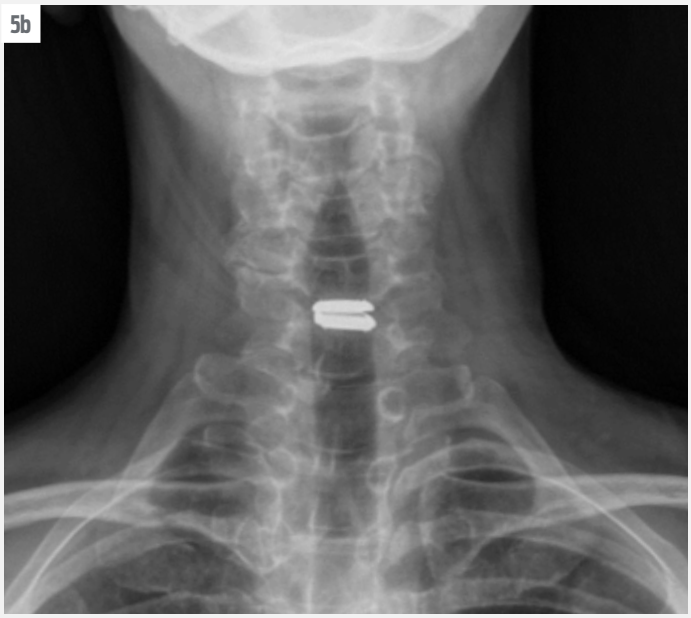
FIGURES 4a, 4b: Post-Operative Lateral (a) and A/P (b) Views with prodisc C Vivo.

DISCUSSION

Patient is a healthy, active 58 year-old female, though with advanced degenerative spondylosis at a low cervical level. The patient had favorable anatomy with a long neck and low shoulders to facilitate intraoperative visualization. Fusion was appropriate in this case, but intraoperatively, though we were prepared for this possiblity, the disk space was well-preserved and mobilized without major modification of the endplates. The postoperative flexion and extension radiographs showed movement at the spinous processes of C6/7 and good function of the prodisc C Vivo prosthesis. The adjacent C5/6 level also shows degenerative spondylosis. By optimizing the mobility of the C6/7 level I anticipate the patient will have an improved trajectory for her cervical spine function throughout her life.

This patient was a sophisticated healthcare practitioner who was very committed to staying active and understood that optimizing her function at C6/7 was a key part of this goal. Through our preoperative discussions she understood that she might require a fusion procedure intraoperatively instead of arthroplasty depending on anatomical findings. By discussing with this patient the benefits and the risks of arthroplasty—namely the possibility of converting to a fusion procedure later—the patient was empowered to participate in her care plan, which positively influenced her outcome.





FIGURES 5a, 5b: 3 Months Post-Operative Lateral (a) and A/P (b) Views with prodisc C Vivo.

CENTINEL SPINE
US Headquarters: 900 Airport Rd, Ste. 3B, West Chester, PA 19380 USA
EMEA Office: Grafenauweg 8, 6300 Zug, Switzerland
Email: info@centinelspine.com
Web: www.centinelspine.com