CASE STUDY | prodisc® C Vivo

36-Year-Old Male with Hx of Neck Pain Radiating Into Both Shoulders, Numbness in Radial 3 Fingers of Both Hands

By Jason Cuéllar, MD

Practice
Cuéllar Spine

Location
Palm Beach County, FL; Miami, FL; Beverly Hills, CA

Area of Interest
Dr. Jason Cuéllar is an orthopedic surgeon who specializes in treating spinal disorders serving patients in South Florida. He is dedicated to providing compassionate surgical and non-operative treatments for all patients including artificial disc replacement, regenerative medicine, and injections of a novel biologic therapy for osteoarthritis. He is affiliated with Jupiter Medical Center, JFK North Hospital in West Palm Beach and Aventura Hospital in Miami. In addition, he has an office in Beverly Hills with Dr. Todd H. Lanman and performs surgery at the SurgCenter of Palm Beach Gardens, Miami Surgical Center, and Lake Worth Surgical Center in Florida, and at Cedars-Sinai Medical Center in Los Angeles.

Education

PhD
University of California, Davis - Molecular, Cellular and Integrative Physiology, Davis, CA

Medical School
Stanford University, Stanford, CA

Orthopedic Residency
New York University - Hospital for Joint Diseases (NYU-HJD), New York, NY

Board Certification
American Board of Orthopedic Surgery

30+ YEARS OF CLINICAL SUCCESS SINCE 1988

CENTINEL SPINE®

PATIENT HISTORY

This patient is a 36-year-old male with a history of neck pain radiating into both shoulders, numbness in radial 3 fingers of both hands. The onset was after he hit an open car while riding his bike, flipped over the handlebars, and hit his head. He was treated conservatively for a year with physical therapy and pain management.

He has no past medical history and is in excellent shape, very active physically.

His MRI demonstrated disc herniation at C5-6 without adjacent segment pathology. The herniation level corresponded to his radicular distribution (C6)

FIGURE 1: Initial Lateral CT Scan

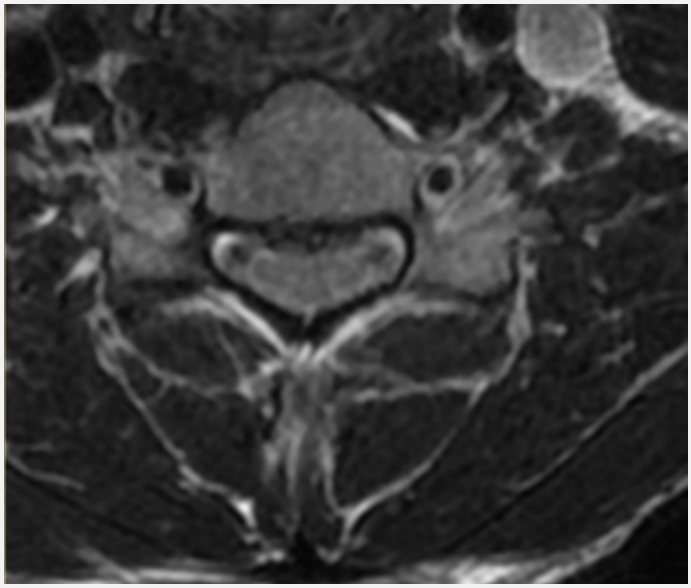


FIGURE 2: Initial Axial CT Scan

FIGURE 3: Initial A/P Radiograph

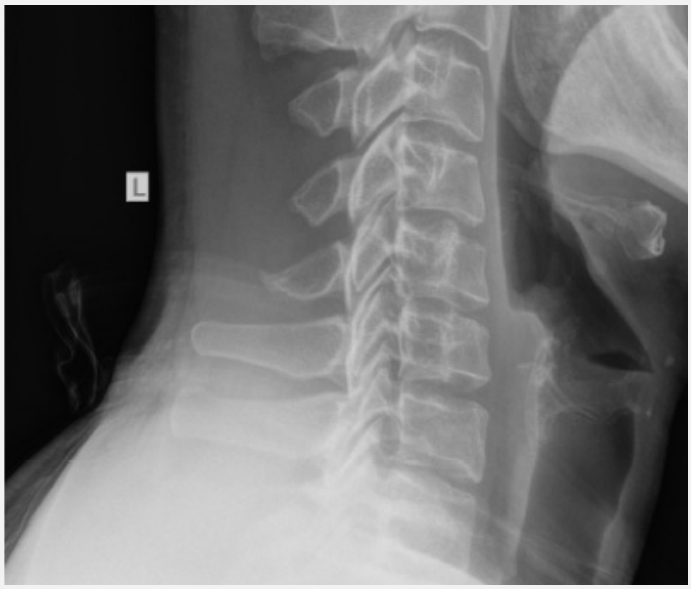


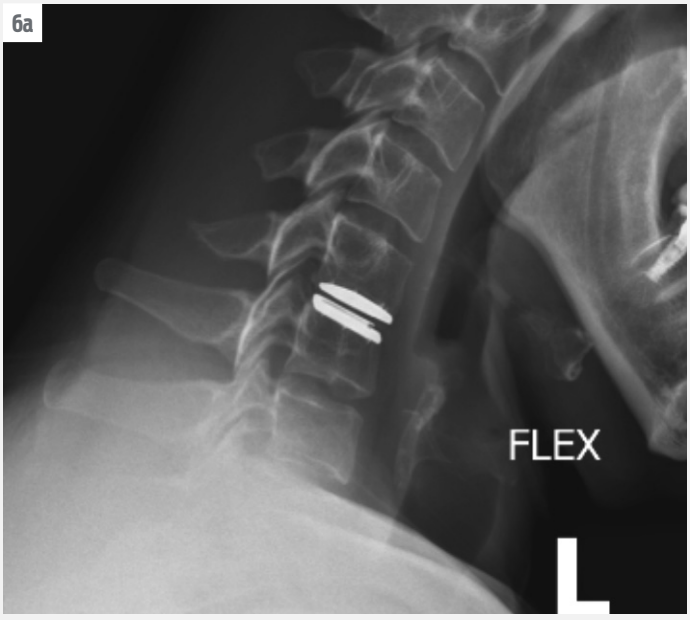
FIGURE 4: Initial Lateral Radiograph

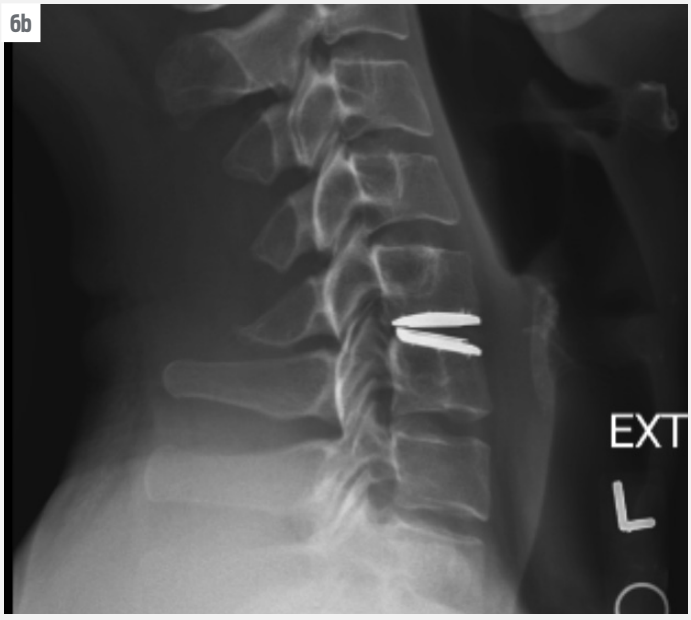
FIGURE 5: Intraoperative Fluoroscopy of prodisc C Vivo Trialing

OPERATIVE PLAN

I planned pre-operatively to use prodisc C Vivo and therefore during surgery I did not use my usual drill carpentry on the upper endplate and left it intact convex. Trialing was critical – he is 6'5" tall so I started with a 6mm tall XL Deep trial and I felt this fit perfectly. The trial was easily moveable but not loose. The facet joint gapping matched that of the adjacent segments. I was able to place the dome within the endplate with a perfect match while also achieving perfect placement of the center of rotation. I honestly walked out of this case thinking how much I love prodisc C Vivo since it fits so perfectly.

At the four-month follow-up appointment, there was a complete resolution of symptoms.





FIGURES 6a, 6b: Flexion (a) & Extension (b) with prodisc C Vivo at 4-Month follow-up visit.

DISCUSSION

Implant selection was a critical pre-operative consideration. This patient is a young athletic person, so I wanted to use a device with proven core longevity and biomechanics. Preoperative considerations included measuring his disc on the preop MRI – at 20mm deep, this excluded several implants that only make a 16mm deep footprint. In addition, since he is 6'5" tall, I wanted a 7mm tall option available if needed; this also excluded some of my implant options. Finally, his superior endplate is concave, making an implant with a convex upper endplate an ideal fit.

FIGURE 7: A/P view of prodisc C Vivo at 4-Month follow-up visit.

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