



Two-level ACDF Using Silicon Nitride Implants in a Case of Severe Neck and Arm Pain

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SUMMARY

A 50-year-old female with unbearable neck and arm pain, accompanied by right triceps weakness, underwent two-level anterior cervical discectomy and fusion (ACDF) using silicon nitride implants at C5-6 and C6-7. Patient experienced fusion and full resolution of symptoms with return to normal activity.



DIAGNOSIS & PROCEDURE

Patient had intractable neck and arm pain for 2 months, along with profound right triceps weakness. Severity of symptoms resulted in extreme discomfort while trying to sleep, requiring patient to miss work. During examination, extension recreated right arm pain characterized as a sharp burning sensation.

Patient had failed conservative treatment consisting of Percocet, Medrol, anti-inflammatories, and muscle relaxers. Radiographs indicated C5-6 and C6-7 spondylosis with disc height collapse and arthropathy. MRI revealed severe neuroforaminal stenosis from disc osteophyte complexes, as well as some central stenosis.

Patient underwent a two-level ACDF at C5-6 and C6-7 using silicon nitride interbody implants (**Amedica Valeo™ II C** – 14x12mm footprint, 7mm height, 6° lordosis) packed with DBM putty and local autograft. Plate and screws were used for anterior fixation.

RESULTS

At 6-week postoperative follow-up, patient's shooting arm pain had significantly improved and only mild mechanical neck pain remained. At 3-months postoperative, both arm and neck pain were completely resolved. By 6-month follow-up, patient had completed physical therapy and returned to work and normal activities.

Radiographic examination performed at 6-weeks, 3-months, and 6-months postoperative confirmed hardware and implants were in alignment with no sign of loosening, and demonstrated integration of bony fusion between levels. One-year follow-up confirmed successful surgery and fully fused C5-7.

CONCLUSION

- Patient's pain and weakness were quickly resolved at 6 weeks
- Stable and successful fusion at 1 year using **Amedica Valeo™ II C interbody cages**