Single-level ACDF Using Silicon Nitride Interbody

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SUMMARY

43-year-old male underwent a single-level anterior cervical discectomy and fusion (ACDF) using a silicon nitride implant at C6-7. Excellent clinical results, with fusion at 6 months postoperative.

DIAGNOSIS & PROCEDURE

Patient had experienced 3 months of severe radiating left arm pain, with mild limited neck rotation and weakness in triceps. MRI revealed C6-7 herniation of nucleus pulposus with mass effect on the left C7 nerve root.

After failed conservative treatment, patient underwent an ACDF at C6-7 using a silicon nitride interbody (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 follow-up visit, patient's neck and arm pain were completely resolved. By 6-month follow-up, patient stated he was at 100% health.

Radiographic examination at 6-weeks, 3-months, and 6-months postoperative demonstrated progressive fusion, with bone bridging across the disc space visible at 6 months. The patient was cleared to continue with normal activities, without restriction. One-year follow-up confirmed successful surgery and fully fused C6-7.

CONCLUSION

- Patient showed radiographic early healing with pain completely resolved at 6 weeks
- Successful fusion at 6 months using Amedica Valeo™ II C interbody