

## **754 Cadaveric Fibula and Locking Cervical Plate in 361 Cases [Abstracts Of Oral Presentations]**

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**Introduction and Methods:** 361 cases that underwent anterior cervical discectomy or corpectomy with cadaveric fibula fusion (202 with graft) and internal fixation using the locking cervical plate were compared 10 126 consecutive autologous iliac crest fusions using chi-square analysis.

**Results:** Pathology in the fibula group included radiculopathy in 183, myelopathy in 130, 24 tumors, 9 facet dislocations/disc herniation, 10 burst fractures, 5 autologous iliac crest graft collapse pseudoarthrosis. In the fibula/plate group, there were 157 single level ACD fusions, 110 multi-level ACD fusions, 50 single body corpectomy, 35 multiple body corpectomies and 9 single level ACD fusion with posterior fusion. Peri-operative complications included transient hoarseness in 3 cases, severe airway swelling in 1 burst fracture and 1 graft fracture reoperated. There were no transfusions, infections, neurologic injuries, or deaths. Mean time in the hospital for the non-traumatic cases was 1.1 days. The mean followup is 70 months (6-102 months). Long term complications include 2 multi-level corpectomy with bent or broken screws (1 reoperated), 2 traumatic plate and/or graft fractures reoperated, and 1 pseudoarthrosis/plate fracture reoperated. At 1 year, there was 99% radiographic fusion, with no motion, no kyphosis, no symptomatic screw plate backout and no progressive fibular graft collapse. Compared to 126 iliac crest fusions, there were fewer graft related complications ( $P<0.001$ ). In the single level ACD there was a greater complete relief of neck pain with fibula/plates as compared to iliac crest ( $P<0.02$ ). Time until return to work was shorter for the fibula/plate group by 5-6 weeks ( $P<0.05$ ). Plate complication due to graft subsidence in multi-level corpectomies was 1/35 (3%).

**Conclusion:** Cadaveric fibula/locking plate fusion is superior to iliac crest in the first 6 years after any cervical fusion.