Instrumented 4-Levels ACDF And Plating: The Clinical Outcome In More Than 35 Patients At A Single Institution

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Purpose.
To review the outcome of 36 consecutive patients who underwent instrumented 4-levels anterior cervical discectomy and fusion (ACDF) and plating and were followed up for at least 1.5 years.

Material and Methods.
Records of 27 men and 9 women aged 40 to 83 years who underwent instrumented 4-levels ACDF and plating for myeloradiculopathy (n=34) or myelopathy (n=9) at C3 to C7 (n=33) or C4 to T1 (n=3) by a single surgeon and were followed-up for a minimum of 1.5 years were reviewed. Clinical outcome was assessed using the visual analogue scale (VAS) for pain, Odom’s criteria, improvement of symptoms, intra- & post-operative complications, and need for revision surgery.

Results.
The mean follow-up was 56.9 months. All patients who had weakness pre-operative (n=24) had a good recovery of motor power except 4 (one of them developed C5 palsy). The mean VAS for arm and neck pain improved from 9.2 to 5. Concerning the Odom’s criteria, 12 were Excellent, 13 were good, 10 were fair and 1 was bad. Concerning intra- and post-operative complications there were 9 cases developed dysphagia (all improved by 3 months), 3 cases developed temporary dysphonia, 2 cases developed post-operative hematoma and the wound was opened to evacuate the hematoma, no vertebral artery injuries, and no wound infection. The average length of stay was 3.4 days. 7 patients needed another surgery (1 adjacent segment and 6 posterior foraminotomies).

Conclusion.
Instrumented 4-levels ACDF and plating are safe and effective for multilevel cervical spondylosis and achieve a satisfactory outcome.