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THE OUTCOME OF ANTEROLATERAL CERVICAL FORAMINOTOMY IN 50 CASES WITH A 10-YEAR MINIMAL FOLLOW-UP

Introduction/Aim: Anterolateral foraminotomy (ALF) obviates the need for cervical fusion when treating cervical radiculopathy leaving the bulk of the cervical disc intact. First described by Verbiest in 1968, it was simplified by Hakuba in 1976 and Snyder and Bernhardt in 1989. The purpose of this study was to evaluate the safety and outcomes of 50 Patients undergoing ALF surgery.

Materials and Methods: A retrospective consecutive review of 50 patients who underwent ALF at a single tertiary centre between 1998-2004 was carried out. The mean age at surgery was 44 years (range 27-67). The minimum follow up period was 10 years (10-16). The numbers male:female were 34:16, right:left were 22:28. The mean discharge time was 2 days (1-4). Operated levels were C5/6 n=10, C6/7 n=33, C7/T1 n=3 and 4 patients had 2 levels treated at the same time. The neck disability index (NDI), arm pain visual analogue scores (VAS), European myelopathy scores (EMS), and ability to work was assessed as part of our outcomes.

Results: At a minimum of 10 years follow-up the NDI scores improved from 46 points on average before surgery to 17 points, the arm pain VAS scores improved from 6.6 to 2.3 and the EMS scores improved from 15 to 16. The average ability to work score also improved from 50% to 75%. Paired T test statistical analysis showed that these 10 year results had a significance p value of <0.001. There were 3 patients with lower NDI scores at their first follow up appointment and 4 patients with lower NDI scores at 10 years. 2 patients required reoperation at the initial level. 1 patient required an additional ALF at an adjacent level during our follow up period. There were no major complications.

Conclusion: Our data shows the ALF procedure to be a safe and effective treatment comparable to published ACDF results. There were statistically significant reductions in arm pain and overall function. ALF allows for motion preservation without the risk or cost that is inherent in prosthesis or fusion.