

MSLP using the HA spacer and the Basket2 in patients with compressive cervical myelopathy. **Material and Methods:** 52 patients with compressive cervical myelopathy who underwent MSLP in three or four laminae were enrolled. 28 patients (19 males and 9 females, a mean age of 65.8 years) with the use of the HA spacer were classified as HA group and 24 patients (12 males and 12 females, a mean age of 63.6 years) with the Basket2 were as B2 group. The operation time was assessed. Preoperative and two-year follow-up evaluations included the Neurosurgical Cervical Spine Scale (NCSS, full score 14 points) for neurological condition and radiological analysis including C2-C7 lordotic angle in neutral position (LA), flexion-extension range of motion for C2-C7 (ROM) and C2-C7 sagittal vertical axis (SVA). **Results:** The mean operative time was 150 minutes in HA group and 112 minutes in B2 group, while the mean number of treated laminae was 3.6 in both groups. Mean NCSS was improved from 8.5 to 12.5 in HA group and from 9.5 to 12.9 in B2 group. Mean LA increased from 4.8° to 8.2° in HA group and from 6.0° to 10.1° in B2 group. Mean ROM decreased from 31.5° to 20.5° in HA group and from 35.0° to 26.1° in B2 group. Mean SVA extended from 18.5 mm to 21.6 mm in HA group and from 23.4 mm to 24.7 mm in B2 group. As a result, significant differences between the two groups were observed in operative time and ROM at two-year follow-up. **Conclusion:** In MSLP, the Basket2 was more useful than the HA spacer in terms of shorter operative time and less postoperative ROM loss. It was speculated that the differences of material, profile, fixation method between these two spacers were involved in the results.

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### **PI59: Is plating necessary in two-level ACDF surgery? Prospective controlled study**

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**Introduction:** Anterior cervical decompression and fusion (ACDF) surgeries are one of the most commonly performed spinal procedures. Despite its frequent usage, there is no consensus among surgeons on the usage of implants to achieve fusion when performed at two levels. We aim to investigate the necessity of an additional anterior cervical plate over the cages used in two-level ACDF surgery concerning the clinical and radiological outcomes. **Methods:** We performed a prospective comparative controlled clinical trial among 48 patients who underwent two-level ACDF surgery for degenerative conditions of the spine with a minimum follow-up of 1 year. The patients received either

standalone cages (SAC) or cage with plate (CP) constructs to achieve fusion at the two levels operated. Clinical outcomes such as neck disability index (NDI) and visual analog scale (VAS) score for pain were assessed at preoperative, 3, 6, and 12 months post-operative period along with complications. During the above-mentioned visits, radiological parameters such as fusion status, subsidence, C2-C7 lordosis angle, fusion segment angle, and adjacent segment disc space narrowing were analyzed. **Results:** The mean age of the population included in the study was 49.4 ± 4.5 years with 14 females in each group. In comparison to the CP construct for two-level ACDF surgery, the SAC group demonstrated better NDI scores at 3, 6, and 12 months follow-up but the difference was not statistically significant ( $p = 0.070$ ). We did not note any significant difference in the VAS scores between the two groups ( $p = 0.208$ ). At 1 year follow-up, we noted significant cage subsidence in 33% of patients in the SAC group and while subsidence was noted only in 16.6% of patients in the CP group ( $p = 0.021$ ). However, none of the patients with subsidence reported any symptoms that required revision surgery. We noted a significant increase in post-operative dysphagia in the CP group compared to the SAC group ( $p < 0.001$ ). We also did not note any significant difference in the other radiological parameters such as C2-C7 lordosis or fusion segment angle or adjacent segment disc space narrowing. We did not note any significant difference in the fusion rate at one year for both SAC (91.6%) and CP (95.8%) constructs of two-level ACDF surgery ( $p = 0.32$ ). **Conclusion:** The use of plating in two-level ACDF surgery significantly reduced the incidence of asymptomatic cage subsidence compared to the SAC group along with a significant increase in the incidence of postoperative dysphagia. We did not find any other additive advantage with the use of an anterior cervical plate over a cage construct in two-level ACDF surgeries to recommend its routine use.

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### **PI60: Laminectomy alone for cervical spondylotic myelopathy: a CSORN study**

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**Introduction:** Most posterior cervical decompression is supplemented by instrumentation and fusion in North America. However, laminectomy alone remains a common procedure in certain parts of the world, including Europe. Results comparing these two interventions are contradictory in the literature. Our objectives were 1) to better defined the cervical myelopathy population who are treated with a decompression alone; 2) to assess the outcome of patient