Bestes Poster

Long-term outcome after double-adjacent-level anterior cervical microdiscectomy and fusion using plasmophore covered titanium cages only

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Department of Neurosurgery, Kantonsspital Aarau, Aarau, Switzerland OBJECTIVES: To evaluate the long-term outcome of two-adjacent-level microsurgical anterior discectomy (ACD) using plasmaphore coated titanium cages (PCTC) without plate implantation. SUBJECTS: A total of 34 consecutive patients presenting with degenerative cervical disc disease (DDD) underwent surgery. No plate system was implanted. Surgery was performed in at levels C5-6 and C6-7 in 30 patients, and at C4-5 and C5-6 in 4 patients. 28 patients presented with one- or twolevel radiculopathy and six with additional progressive myelopathy signs. Long-term evaluation (mean: 61.60 ± 13.88 months, range: 3-7 years) included clinical and radiological assessment. Radiological evaluation included dynamic studies, evaluation of bone fusion, cage extrusion, disc space and height, subsidence, and kyphosis. Patient's ability to work, functional outcome according to the Odom's criteria (OC), and subjective outcome (SO) were documented. RESULTS: 73% of the patients had a good (44%) or excellent (29%) outcome. Seven patients (21%) described fair and 2 patients (6%) a poor outcome due to persistence of neck pain (5), radicular pain (5) and/or neurological deficits (5). 68% of the patients resumed their previous work capacity or were retired at the time of the evaluation. In the long-term radiological assessment, fusion of the two levels could be documented in 27 of 28 patients (96%), in one case signs of fusion were observed only in one level. In two patients (7%) long-term kyphotic cervical deformity was observed. One patient had to be reoperated 3 months after surgery because of instability in the operated segments. CONCLUSIONS: Two-level ACD using PCTC without implantation of plates is safe and achieves similar clinical outcome and fusion rates associated with bone graft or plate implantation. ACD for two-level cervical DDD without implantation of plates is associated with a lower morbidity and costs.

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