

## Euro Psychiatry 2020 The Influence of Brain Lesion on Stand-Alone Anterior Cervical Decompression and Fusion in Three Levels with Peek Cages: A Possible Satisfactory Alternative

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Anterior cervical decompression and fusion (ACDF) remains the gold standard for subaxial degeneration of anterior elements. By multilevel stenosis corpectomy or instrumentation with screws and plate are supported. Their potential complications, though, should be reckoned. The use of polyetheretherketone (PEEK) cages packed with demineralized bone matrix (DBM) alone can provide good fusion rates and clinical improvement even in cases of three levels degeneration. The purpose of this paper is to present retrospectively the outcomes of 15 patients with cervical stenosis in three levels treated with cage implantation reviewing the relevant literature, too.

Anterior cervical decompression and fusion (ACDF) remains the gold standard for sub axial degeneration of anterior elements [1]. In cases of multilevel stenosis more recent methods such as corpectomy [2] or instrumentation with screws and plate are supported [3]. Their complications, though, concerning failure or dislocation of material and adjacent neurovascular structures injury, as well, should be reckoned [2,4]. The use of polyetheretherketone (PEEK) cages packed with demineralized bone matrix (DBM) alone can provide good fusion rates and clinical improvement even in cases of three levels degeneration [5]. Although Class-I evidence, thereof, do not exist stand-alone cage placement could be an alternative for patients with major comorbidities.

The purpose of this paper is to present a retrospectively assessed series of 15 patients with cervical stenosis treated in three levels reviewing the literature, as well.

### Materials and Methods

15 patients were operated in three levels from 2012 until 2015 presenting with either mild myelo/radiculopa-

thy or severe myelopathy. Patients with traumatic, infectious or neoplastic stenosis were excluded. Their mean age was 58 years-old. Male individuals were 9 and female 6. Nine of the patients underwent a one-stage operation, five of them a twostage and one patient were operated in three phases.

By all patients the classical method, as it was described by Smith and Robinson [6] under microscope was followed. Our aim was to avoid excess distraction, resecting initially the most anterior of the superior endplate like a "cap" using a Kerrison rongue providing thus surgical plane for sufficient disc removal. Further disc removal was performed using preferably only a rongue, too, except of cases of massive osteophyte formation. The disc, posterior longitudinal ligament and osteophytes were extracted decompressing consequently the foramina; endplate cartilage was also curetted. Cages were filled with demineralized bone matrix (DBM) and their position was controlled radiographically. Platysma was then closed and afterwards the subcutaneous layer and cutis separately. Postoperatively patients wore a soft collar for ten days.

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