TM-S Cervical Fusion Device

To determine the safety and efficiency of stand-alone trabecular metal (TM) (or porous tantalum) cages for anterior cervical fusion (ACF), Mastronardi et al., performed a retrospective analysis of 88 consecutive patients with one-level or two-level degenerative disc disease (DDD) causing cervical myelopathy treated by interbody fusion with stand-alone TM cages.

During a 65-month period, 88 consecutive patients had ACF at 105 levels between C3 and C7. All surgeries involved one- or two-segmental DDD producing mild or severe cervical spine myelopathy, in 31 patients (35.2%), associated with unilateral or bilateral radiculopathy. They implanted all disk spaces with unfilled TM trapezoidal cages (Zimmer Biomet Spine, Broomfield, Colorado, United States).

At a mean follow-up of 31 months (range: 12-65 months), 95.4% of patients had a good to excellent outcome, with subjective and objective improvement of myelopathy; the result was fair in two and poor in two other patients. Radicular pain and/or any deficits disappeared in 84 patients (95.4%) complaining of preoperative myeloradiculopathy. The fusion rate was 68.2% at 6 months and 100% at 1 year. Device fragmentation was never observed. In two cases, a second operation with removal of TM cages, corpectomy, expansion cages, and plating was necessary.

TM cages appear to be safe and efficient for ACF in DDD patients with myelopathy. To confirm our preliminary impressions, larger studies with long-term follow-up are necessary [1)].

1)
Mastronardi L, Roperto R, Cacciotti G, Calvosa F. Anterior Cervical Fusion with Stand-alone Trabecular Metal Cages to Treat Cervical Myelopathy Caused by Degenerative Disk Disease. Observations in 88 Cases with Minimum 12-month Follow-up. J Neurol Surg A Cent Eur Neurosurg. 2018 Jun 14. doi: 10.1055/s-0038-1642008. [Epub ahead of print] PubMed PMID: 29902826.