Mobi-C

https://www.cervicaldisc.com/

Zimmer Biomet

Mobi-C (LDR Spine USA, Inc., Austin, TX, USA) is Food and Drug Administration (FDA)-approved for one-level (8-7-2013, P110002) and two-level (adjacent) use (8-23-2013, P110009). It contains two cobalt-chrome alloy shells with an intervening polyethylene insert.

It has lateral self-retaining teeth, designed for optimal stability and anchoring. The insert's mobility may reduce constraints on the posterior facet joints, though this has not been proven. Currently, the Mobi-C disc has FDA approval as the first and only artificial disc for both single-level and two-level CDA [1)].

A total of 225 patients received the Mobi-C TDR device and 105 patients received ACDF. The Mobi-C and ACDF follow-up rates were 90.7% and 88.6%, respectively. Both groups showed significant improvements in all outcome scores relative to baseline at each time point up to 60 months. There was a significantly increased percentage of successful TDR patients (61%) vs ACDF patients (31%) at 60 months. The TDR patients had significantly more improvement than ACDF patients in NDI score, SF12 PCS, and overall satisfaction with treatment at 60 months. Finally, the overall reoperation rate was significantly higher in the ACDF group at 16% compared with 4% in the TDR group.

Anterior cervical surgery for contiguous 2-level pathology was safe and effective in improving patient outcome and quality of life at 5 years in both groups. There were fewer incidences of index level and adjacent level reoperation in the disc replacement group. Overall, we conclude that TDR was superior to ACDF for treatment of 2-level contiguous pathology at 5 years [2)].

1)
Alvin MD, Abbott EE, Lubelski D, et al. Cervical arthroplasty: a critical review of the literature. Spine J. 2014;14(9):2231–2245.
2)
Coric D, Albert T, Radcliff K. 168 Five-Year Results of 2-Level Cervical Total Disc Replacement Compared With Anterior Discectomy and Fusion: An Independent Review of a Prospective, Randomized, Controlled Multicenter Investigational Device Exemption Clinical Trial. Neurosurgery. 2015 Aug;62 Suppl 1:221. doi: 10.1227/01.neu.0000467132.97525.c3. PubMed PMID: 26182014.