

Abstract #1747.doc

TREATMENT OF CERVICAL ADJACENT SEGMENT DEGENERATION WITH STANDALONE INTERSOMATIC CAGE

Introduction

Standalone cage implantation is considered as standard technique for intersomatic fusion after cervical spine decompression. In this case the stresses expected on the implant make the use of standalone cages debatable. Data dealing with this subject is scanty in the literature. Aim of this work is to evaluate the success rate of using standalone implants in the treatment of symptomatic cervical adjacent segment disease (ASD)

Methods

Retrospective study of prospectively collected patients undergoing intersomatic fusion for ASD of the subaxial cervical spine using standalone cages between 2007 - 2013. The analysis revealed 70 levels in 59 patients (31 males & 28 females, mean age: 56.4 years). All patients underwent microscopic decompression with implantation of a standalone cage filled with autogenous bone graft. The data were then analysed with emphasis on sagittal profile and fusion rate

Results

Mean interval between primary operation and that for ASD was 7.3 years. ASD occurred after monosegmental fusion in 21 cases, bisegmental fusion in 29 and trisegmental fusion in 9 patients. Cranial to the fusion in the majority of cases (60%) and affected mostly a single disc. Only in 11 patients (18.6%), two discs were affected. All cases were evaluated for a mean follow-up of two years

An improvement of the mean segmental lordosis of the adjacent disc from 5.1° preoperatively to 8.5° postoperatively was revealed. At the final follow-up, mean segmental lordosis remained roughly unaffected with (7.9°). Mean cervical lordosis improved from 17° preoperatively to 20.3° at the final follow-up. Regarding the fusion rate, full radiologic fusion was achieved in 57 patients with pseudoarthrosis rate of 3% (two patients), who were clinically free of symptoms, so that a revision surgery was not necessary. Neither the number of fused segments at the index surgery nor the location of ASD didn't affected the final results

Conclusion

The application of standalone cage for intersomatic fusion in cervical ASD is a safe procedure yielding good results regarding fusion rate and cervical lordosis, regardless the number of fused segments at the index surgery. Additional instrumentation was not necessary in any patient of this series