

Abstract #1394.docx

Adjacent segment disease after cervical arthroplasty – our experience

Introduction

Total disc replacement (arthroplasty) has been developed as alternatives or adjuncts to cervical discectomy and fusion that decrease the development of adjacent segment disease. By reducing the load on adjacent discs and preserving adjacent segmental motion, the intention of these systems is to stop or delay the degeneration of adjacent segments. We present data from our group of patients treated for cervical radiculopathy using cervical disc prosthesis.

Material and methods

During a 6 year period 52 patients were treated with cervical arthroplasty. A total of 61 devices were implanted between one to two levels. Clinical evaluation was performed both before and after surgery using Visual Analog Score (VAS) and Neck Disability Index (NDI) scores. Radiological findings were analysed using pre- and post-op plain X-Ray and MRI study.

Results

There were no major peri- and post-operative complications or device related failures. Significant clinical improvement in VAS and NDI score achieved by 2 years period were sustained at 5 years. X-Ray revealed fusion were in 1 (1,6%) implants in 2 years period and 5 (8,1%) implants in 5 years period. Radiological findings of adjacent segment disease in 5 years period were at 4 (7,7%) patients and additional surgical procedure was performed in 1 (1,9%) patient.

Conclusion

Cervical disc arthroplasty can preserving motion at operated level and global neck mobility and may result in reduction of adjacent segment disease.