ADJACENT LEVEL CERVICAL DISC REVISION USING NEW ZERO-P CAGE DEVICE-TECHNIQUE AND OUTCOMES

G Balamurali, M A König, B M Boszczyk
Considerations in revision anterior cervical surgery:

1. Instrumentation / implants:
   - Need for implant removal (have correct tools)
   - Need for exposure of entire implant?
   - Adjacent level or failed previous level?

2. Side of exposure
   - Recurrent laryngeal nerve injury?
   - Vascular injury (vertebral artery)?
   - Visceral injury (oesophagus)?
Device – ZERO-P (Synthes)

- Cage Interbody PEEK
- Titanium alloy plate
- Locking screw
MATERIAL/ METHOD

- Retrospective review of 4 patients:
  - Previous ACDF cage and plate
  - New onset of adjacent level cervical disc prolapses/ myelopathy

- Outcome Measurement:
  - Details of surgery/ length of stay
  - Pre-post : ODI/ VAS/ X-ray
78 yrs F previous C4/C5 fusion, progressive myelopathy 6 mths, Ranawat IIIA
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1 year postop walking unaided
68 yr M 1996 radiculopathy L arm since RTA 1995
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47 yr F right C6 radiculopathy, progressive gait unsteadiness
previous 2 x anterior fusion 12 yrs ago
Previous posterior decompression, 9 yrs ago
Recent spinal cord stimulator implantation
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12 weeks – arm pain resolved, myelopathy unchanged – no worse
Summary:

1. True incidence of cervical anterior revision surgery unknown
2. Evaluation of vertebral arteries, recurrent laryngeal nerve and viscera are mandatory
3. Individualised surgical planning and selection of implant
4. Total implant exposure not always necessary
5. Zero-p device – safe, easy to use and preferred device in these patients
6. Risk of revision surgery probably lower than traditionally believed
Disclosure

None of the authors has any potential conflict of interest