2020 Annual Conference Abstract Submission

PRESENTATION TITLE:
Outcomes of Failed Lumbar Disk Arthroplasties

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DEGREE:
MD

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Yes

LIST ANY DEVICES NOT CURRENTLY APPROVED FOR USE BY THE FDA:
n/a

STRUCTURED ABSTRACT (PURPOSE, METHODS, RESULTS, AND CONCLUSIONS) IN LESS THAN 400 WORDS:

Background: Lumbar disc arthroplasty is a motion preserving treatment for lumbar radiculopathy and myelopathy that has reported revision rates as high as 10%. Reoperations are frequently due to either poor patient selection or errors in surgical technique. The goal of our case series was to identify complications, outcomes, and potential risk factors associated with revision lumbar spine arthroplasties.

Methods: Chart review and retrospective analysis of failed lumbar disk arthroplasties that required reoperation at an academic military medical center. All patients were Active Duty military or military beneficiaries. Data collected included age, BMI, rank, level of revision, presenting symptoms, time from index surgery to revision, revision surgery performed, final VAS score, and complications from the revision surgery.

Results: Patients were 66.7% male, had a mean age of 35.9☐ 8.9 years, and mean BMI of 29.1☐ 3.8 kg/m2. Of the cohort, 6 (50%) were enlisted soldiers, 5 (42%) were dependents, and 1 (8%) was a Warrant Officer. The majority (10, 83%) of surgeries were at the L5/S1 disc level and the remaining (2, 17%) were at the L4/L5 disc level. Patients experienced symptoms at a mean of 14.4 months and revision was performed at a mean of 21.5☐ 18.6 months after initial surgery. The most common reasons for revision surgery were migration of the implant, 6 patients (50%), and leg pain, 5 patients (42%). One patient (8%) had hypermobility in the setting of bilateral pars fractures. Anterior fusion, posterior instrumentation, or both were performed in 8 (67%) patients. The remaining 4 patients (33%) required non-fusion procedures. There were serious adverse events as a result of the revision surgery in 2 (17%) patients. The mean final visual analog scale (VAS) pain score was 5.1☐ 2.3.

Conclusion: Our series examining the mode of LDA failure and outcomes after revision can be used to counsel patients on the risks of index and revision surgery. If revision surgery is necessary, this series demonstrated a 33% rate of adverse events and an average final VAS score of 5. These results should be considered by the surgeon and the patient.