Lumbar Facet Cysts: Fusion and Decompression vs. Decompression Only

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INTRODUCTION:
Lumbar facet cysts arise from degenerated facet joints and can lead to radiculopathy and neurogenic claudication. Consensus on the best method to address these lesions is lacking (decompression + fusion versus decompression only). Our objective was to describe complications, outcomes, and recurrence rates following surgical management (decompression + fusion versus decompression only) of lumbar synovial cysts.

METHODS: A retrospective analysis was performed of patients with lumbar facet cysts undergoing surgical treatment between 2008 - 2018 at an academic medical center. The following variables were collected: patient demographics, type of surgery (fusion + decompression [DF] or decompression only [DO]), facet cyst level, intraoperative/perioperative/postoperative complications, EBL, length of hospitalization, and reoperation rates.

RESULTS:
A total of 174 patients undergoing surgical treatment for lumbar facet cysts were identified. Mean age was 63.4 (43-93) including 100F (57.5%) and 74M (42.5%). In total, 148 patients (85%) underwent DO and 26 patients (15%) underwent DF. In the DO group, the majority of the cysts were at L4-L5 (54.1%) followed by L5-S1 (30.4%). In the DF group, the majority of the cysts were at L4-L5 (57.7%) followed by L3-L4 (30.8%). Average EBL was 83.3 mL in the DO group vs. 456.4 mL in the DF group (p<0.001). Seven durotomies occurred in the DO group (4.7%) vs. 1 in the DF group (3.8%) (p=0.842). Average length of hospitalization was 2.2 days for the DO patients vs. 5.2 days for the DF patients (p<0.001). The DO group had 9 reoperations (6.1%) vs. 5 reoperations in the DF group (19.2%) (p<0.001). There were 12 cyst recurrences in the DO group (8.1%) vs. none in the DF group (p=0.059). Of the cyst recurrences in the DO group, 5 were managed with decompression with fusion, 3 were managed with decompression only, and 4 were managed nonsurgically. The indications for reoperations in the DF group included adjacent segment disease, pseudoarthrosis, and instrumentation complications.

DISCUSSION AND CONCLUSION:
Decompression only for lumbar synovial cysts was associated with significantly lower rates of reoperation (6.1%) as compared to decompression and fusion (19.2%). However, the rate of cyst recurrence was higher in the DO versus the DF group approaching statistical significance.