

The effect of Exparel (injectable liposomal bupivacaine) on length of stay after outpatient medialized fusion

Medialized spinal fusion is a minimally invasive technique that limits the exposure to the lateral border of the facet joints. Previous studies have demonstrated the feasibility of medialized lumbar spinal fusion in the outpatient setting. There has been significant attention towards moving spine surgery to the outpatient setting as a benefit to both payers and patients. Perioperative opioid sparing pain management protocols are essential to developing a successful outpatient program.

Hypothesis

We studied the effect of Exparel (Pacira) on postoperative length of stay after medialized lumbar fusion.

Methods

This is a retrospective review of outpatient medialized fusion patients with and without Exparel. The surgeries were all performed by the senior author at the same center, and all patients cleared anesthesia protocols deeming them candidates for outpatient surgery. Consecutive patients were reviewed and no cases were excluded. The same preoperative pain medication, intraoperative procedure, intraoperative local and regional injections (Marcaine with epinephrine), as well as postoperative medications were utilized for all patients.

Results

A total of 30 patients were included in the study. All surgeries were performed by the senior author. 14 patients were in the local anesthetic (Marcaine with epinephrine) only group. 16 patients were in the local anesthetic plus Exparel group. The average length of stay for the Exparel group was 142 minutes (range 76-226) and the average length of stay for the local only group was 123 minutes (range 42-294). No statistically significant difference was noted between the two groups after performing a two tailed T test ($p=0.33$).

Conclusion

We were unable to demonstrate any impact of Exparel on postoperative discharge times for medialized lumbar fusion patients in the outpatient setting. These findings are consistent with the proposed mechanism of action of Exparel. Further studies looking at pain control after discharge over the 24-48 hours time frame are needed to determine if Exparel has a cost effective impact on outpatient medialized lumbar spinal fusion.