

Awake Spinal Fusion: Outcome Analysis of Spinal Anesthesia for Minimally Invasive Transforaminal Lumbar Interbody Fusion

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Introduction

- Spinal Anesthesia (SA) has been used in laminectomies and discectomies as an alternative to General Anesthesia (GA)
- Not many surgeons have extended the use of SA to lumbar fusion surgery
- The authors believe that SA may lead to better postoperative outcomes over GA
- A novel thoracolumbar interfascial plane (TLIP) block was added to provide even more analgesia

Aims/Objectives

- The goal of this study was to determine the effectiveness of a novel TLIP block with SA in lumbar fusion surgery by comparing pain scores, length of stay, and opioid doses required post-operatively

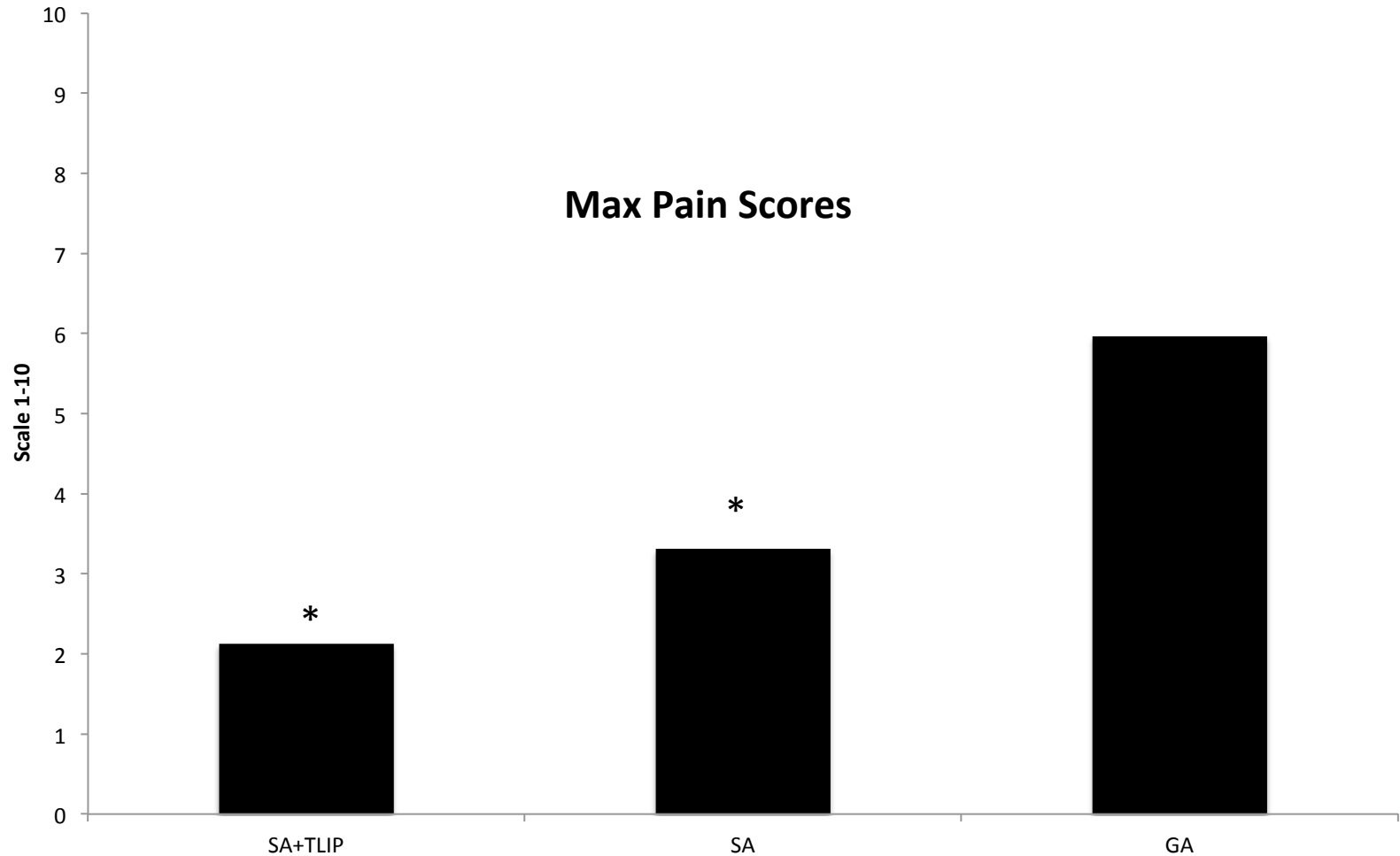
Methods

- 113 Patients were included in the study
- Spondylolisthesis and stenosis were the leading diagnoses
- 53 males and 58 females
- Charts were retrospectively reviewed and patients were categorized into three groups: GA; SA; SA+TLIP block

Results

- 46 patients received GA, 29 patients received SA, and 36 received SA+TLIP block
- Patients were similar in the three groups in age, gender, BMI, preoperative diagnosis, ASA physical score, and number of levels operated on

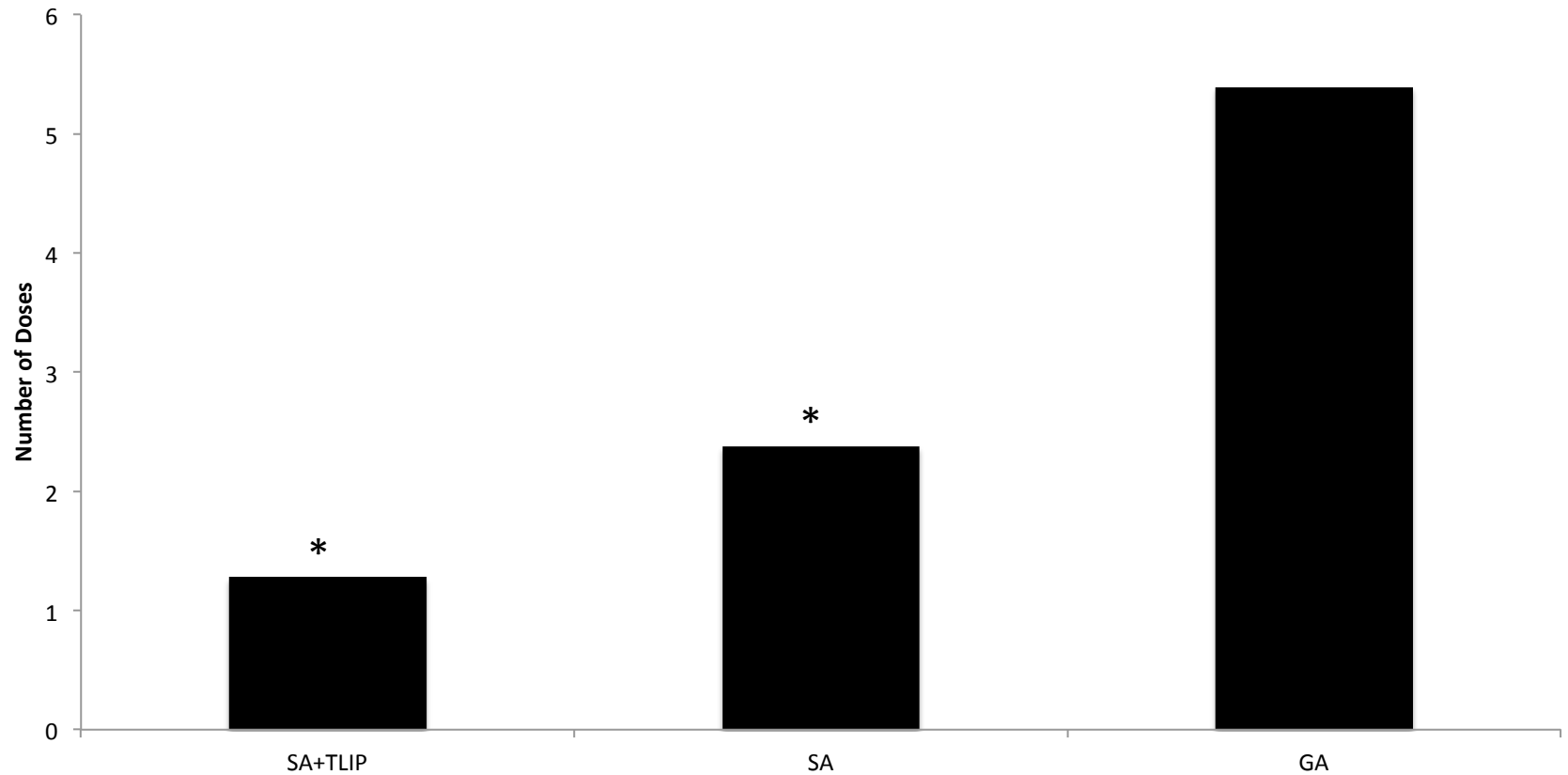
Significantly Lower Max Pain Scores with SA and SA+TLIP



* indicates $p < 0.05$

Significantly Lower Opioid Doses Required with SA and SA +TLIP

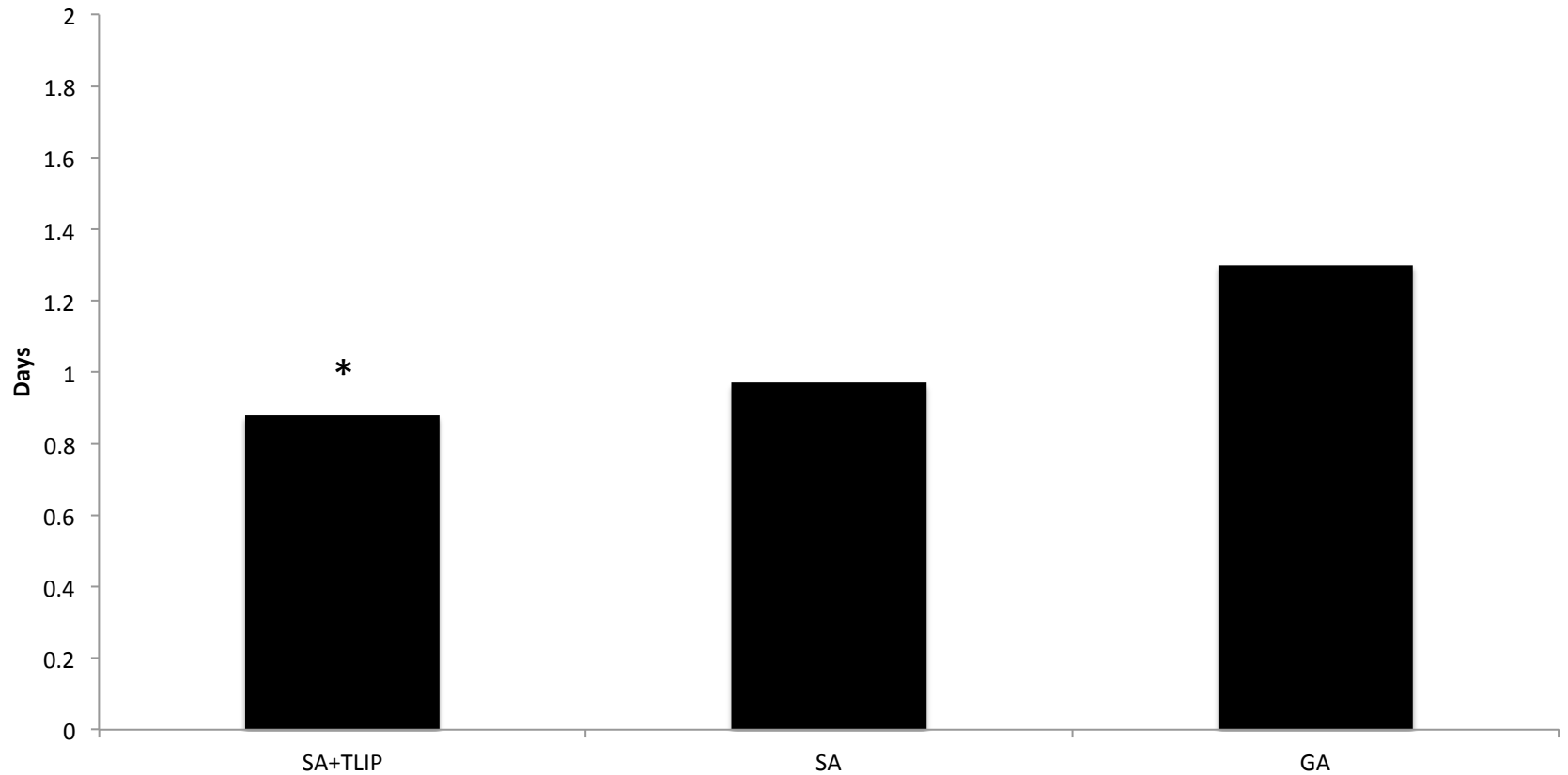
Opioid Doses in PACU



* indicates $p < 0.05$

Significantly Decreased LOS with SA+TLIP

Length of Stay



* indicates $p < 0.05$

Conclusions

- SA and SA+TLIP are effective alternatives to GA in lumbar fusion surgery
- SA and SA+TLIP *reduce pain postoperatively, require less opioid doses*
- SA+TLIP significantly *reduces hospital LOS*
- SA+TLIP outcomes had lower pain scores, less opioid dose usage, and less time in PACU than SA, although this did not reach statistical significance