# General vs Local/Regional Anesthesia for Recurrent Groin Hernias: An Outcome Study from American College of Surgeons NSQIP Database

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## Introduction

There is little data about the benefits of local/regional anesthesia (LRA) compared to general anesthesia (GA) in patients with recurrent groin (inguinal-femoral) hernias. We hypothesize that patients with recurrent hernias who undergo repair with LRA have better outcomes compared to GA.



Figure 1.



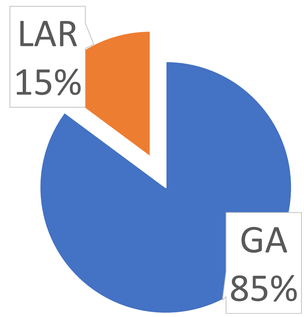
Figure 2.

## Methods

Using the 2017-ACS-NSQIP database, patients who underwent open repair of recurrent hernias were identified and divided into two groups. Outcomes were analyzed by comparing 30-day mortality, complications, readmission rates, operative time (ORT, in minutes), and total hospital length of stay (LOS, in days).

## Results

In this data set, the use of local anesthesia was far less common than the use of general anesthesia, with Of 2169 patients, 1847 (85.2%) underwent repair under GA and are defined as Group A. 322 (14.8%) underwent repair under LRA and are defined as Group B.




ORT and LOS were higher in Group A, while the prevalence of emergency surgeries was also higher in in Group A.

Table 1.

| | Group A (GA) | Group B (LRA) | p-value |
|---|---|---|---|
| ORT (min) | 74 ± 43 | 60 ± 30.5 | p < 0.001 |
| LOS (days) | 0.65 ± 2.5 | 0.27 ± 1.13 | p < 0.001 |
| Emergency Sx | 6.9% | 2.2% | p = 0.001 |

Complications, readmission rates, and 30-day mortality are similar in both groups. However, the group undergoing LRA was less healthy, with higher rates of COPD and higher ASA scores. Group A had a higher rate of low ASA scores (I, II). Group B had a higher rate of COPD and are older.

Table 2.

| | Group A (GA) | Group B (LRA) | p-value |
|---|---|---|---|
| Low ASA (I, II) | 60.9% | 54.8% | p = 0.04 |
| COPD | 3.2% | 6.8% | p = 0.002 |
| Age | 62 ± 15.3 | 68 ± 15.2 | p < 0.001 |

## Conclusion

Although patients undergoing repair of recurrent groin hernia under LRA are older with higher ASA class, they experienced shorter ORT and LOS with fewer emergency surgeries when compared to patients under GA. No differences in complications, readmission rates, and 30-day mortality between the two groups were noted.