

**Department of Surgery**  
**2026 Research Day**  
**6<sup>th</sup> May 2026 (Wednesday) | 7 am – Noon | MART Auditorium**

**Title:**

Socioeconomic And Clinical Factors Associated With Minimally Invasive Versus Open Inguinal Hernia Repair

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**Background:**

Minimally invasive (MIS) inguinal hernia repairs offer advantages including improved wound healing and decreased postoperative pain; however, their utilization varies across patient populations. This study examined factors associated with MIS versus open repair among elective cases.

**Methods:**

Using the New York Statewide Planning and Research Cooperative System database, we identified patients undergoing elective inguinal hernia surgery from 2013 to 2022. Socioeconomic factors and comorbidities were compared using chi-square analysis. Variables significantly associated with MIS repair were included in a multivariable logistic regression model.

**Results (or Preliminary Results):**

Among 78,591 elective repairs, 35.4% were MIS. Patients < 40 years underwent MIS repair more frequently than patients > 70 years (OR 1.78, 95% CI 1.67-1.89). Compared with White non-Hispanic patients, Black non-Hispanic (OR 0.75, 95% CI 0.71-0.79) and Hispanic patients (OR 0.71, 95% CI 0.67-0.74) had lower odds of MIS repair. Commercial insurance (OR 1.22, 95% CI 1.16-1.22) versus Medicaid and low versus median income (OR 1.06, 95% CI 1.02-1.10) were associated with increased odds. Patients with heart failure, renal failure, and other comorbidities had lower odds of a MIS repair, while obesity and nonmetastatic solid tumors were associated with higher odds.

**Conclusions (or Preliminary Conclusions):**

MIS inguinal hernia repairs are independently associated with socioeconomic and clinical factors. While operative approach may reflect patient complexity and resource availability, these findings suggest disparities in access to minimally invasive surgery. Future studies are needed to identify factors driving these differences to improve access.