Hernia Size & Operative Approach for Component Separation During Ventral Hernia Repair

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BACKGROUND

- Abdominal wall component separation usually performed to facilitate repair of large or complex ventral hernias
- Minimally invasive (MIS) approaches (laparoscopic or robotic) may lead to decreased morbidity



- There has been increased use of component separation & increased uptake of MIS approaches to hernia repair over time
- Unclear how operative approach & hernia size influence choice to perform component separation

Main study question:

How do hernia size and operative approach influence a surgeon's choice to perform component separation?

METHODS

- Data Source: Michigan Surgical Quality Collaborative Core Optimization Hernia Registry

COHR CORE OPTIMIZATION HERNIA REGISTRY

- All patients undergoing anterior or posterior component separation (CPT code 15734) for ventral hernia repair from Jan 1, 2020 – June 30, 2022



Ventral Hernia Repair

- Excluded patients only undergoing diastasis recti or subcutaneous flap repairs

Analysis

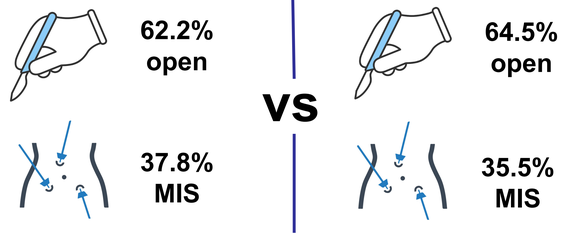
- Main outcomes: distribution of surgical approach & hernia size
  - Approach: open or MIS (laparoscopic + robotic)
  - Hernia size: <2cm, 2-5.9cm, 6+ cm
- Mann-Whitney U test to compare non-parametric variables, Fisher's exact to compare proportions

RESULTS

- 665 total patients
- 449 (68%) performed open & 196 (32%) performed via MIS approach
- Hernia size available for 475 (71%) of patients
- Median hernia size no different between groups
  - 7.0cm (open) vs 7.0cm (MIS), p=0.50
- 196 (41.2%) of component separations performed for hernias <6cm in size
  - 35 (7%) performed for hernias <2cm
- Rate of MIS repair was similar across smaller (<6cm) versus larger (6+cm) hernias (37.8% vs. 35.5%, p=0.61)

	Hernia Size			
Approach	*<2cm*	*2-5.9cm*	*6+ cm*	***Total***
Open	21	101	180	302
MIS	14	60	99	173
Total	35	161	279	475

CONCLUSIONS



- ***Similar rates of open & MIS approaches for small & large hernias***
- ***Over 40% of component separations being done on hernias <6cm in size***
  - ***Possible overutilization?***
- ***Next steps: link to long-term outcomes***

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