



Introduction

The role of minimally invasive surgery in trauma has continued to evolve over the past 20 years. Diagnostic laparoscopy (DL) has become increasingly utilized for the diagnosis and management of both blunt and penetrating injuries.

Objective

While the safety and feasibility of laparoscopy has been established for penetrating thoracoabdominal trauma, it remains a controversial tool for other injury patterns due to the concern for complications and missed injuries. We sought to examine the role of laparoscopy for the initial management of traumatic injuries at our urban Level 1 trauma center.

Methods

Retrospective chart review

- Trauma patients who underwent DL 2009-2018 at Grady Memorial Hospital
- Collected demographics, mechanism, operative reports, hospital course

Outcomes

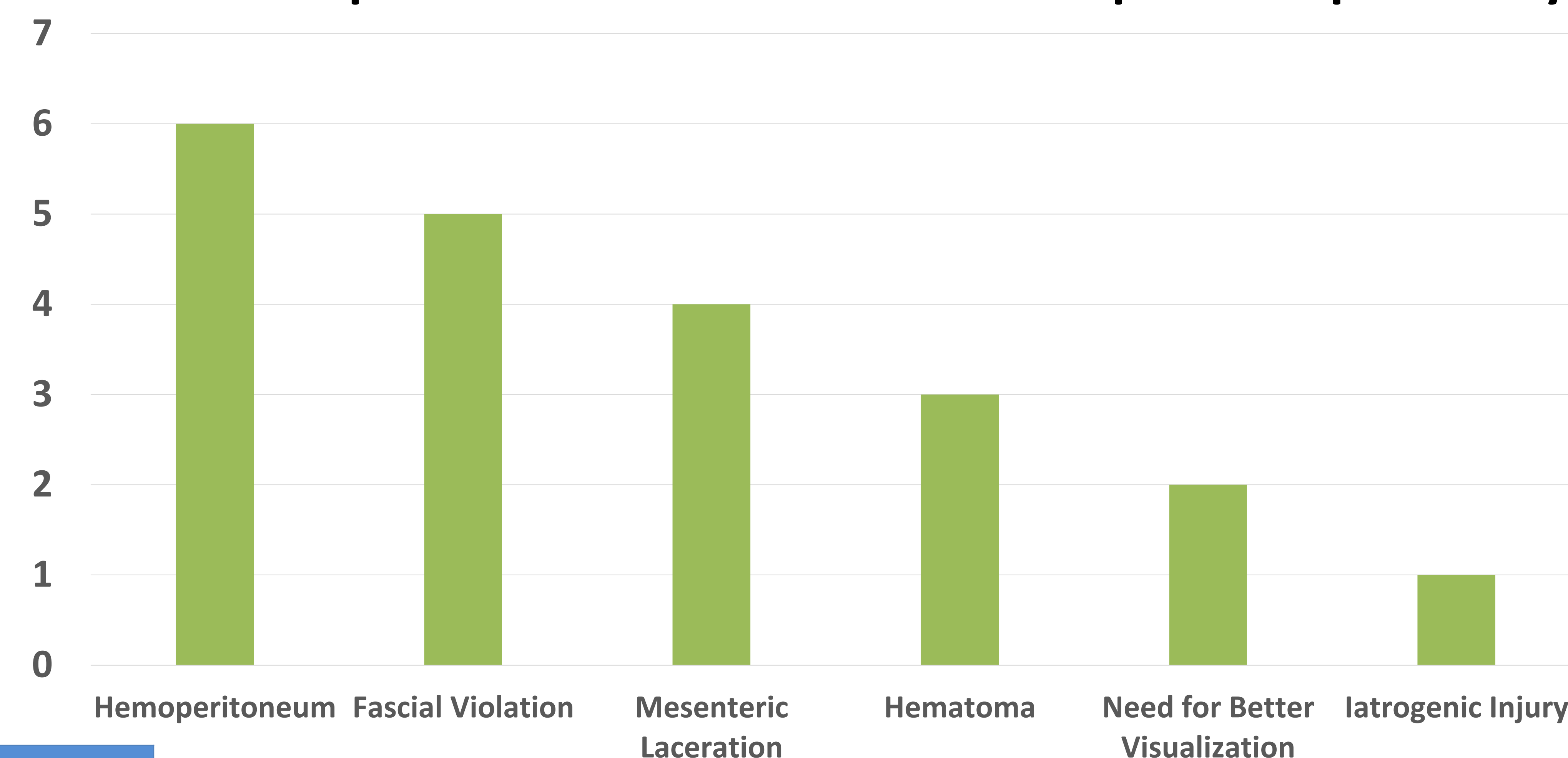
- Organs injured
- Conversion to open
- Length of stay (LOS)

Results

Variables	Cohort N=324
Age, mean (+/- SD)	35 (14)
ISS, mean (+/- SD)	13 (10)
GCS, mean (+/- SD)	14 (2.7)
Mechanism (n,%)	
Blunt	112 (34.5)
Penetrating	212 (65.5)

Organ	# Converted to Open/ Total # Organ Injured	Percentage (%)
Diaphragm	30/34	88.2
Liver	22/37	59.4
Spleen	16/17	94.1
Stomach	8/9	88.9
Small Bowel	32/34	94.1
Large Bowel	39/43	90.7
Kidney	1/2	50.0
Bladder	1/1	100
2± organs	45/47	95.7
No Injury	21/178	11.8

Reason for Open Conversion with Non-therapeutic Laparotomy



Length of Stay (LOS)

Laparoscopy (days)	2.2
Laparotomy (days)	4.5

Discussion

In this single institution retrospective study, the high volume of cases appears to show that DL is a reliable tool for detecting injury and avoiding potential negative laparotomies. However, when injuries were present, the high rate of conversion to open exploration suggests that its utility for therapeutic intervention warrants further study.