

COMPARISON BETWEEN VIDEO-ASSISTED VERSUS OPEN SURGICAL REPAIR OF DIAPHRAGMATIC DEFECTS

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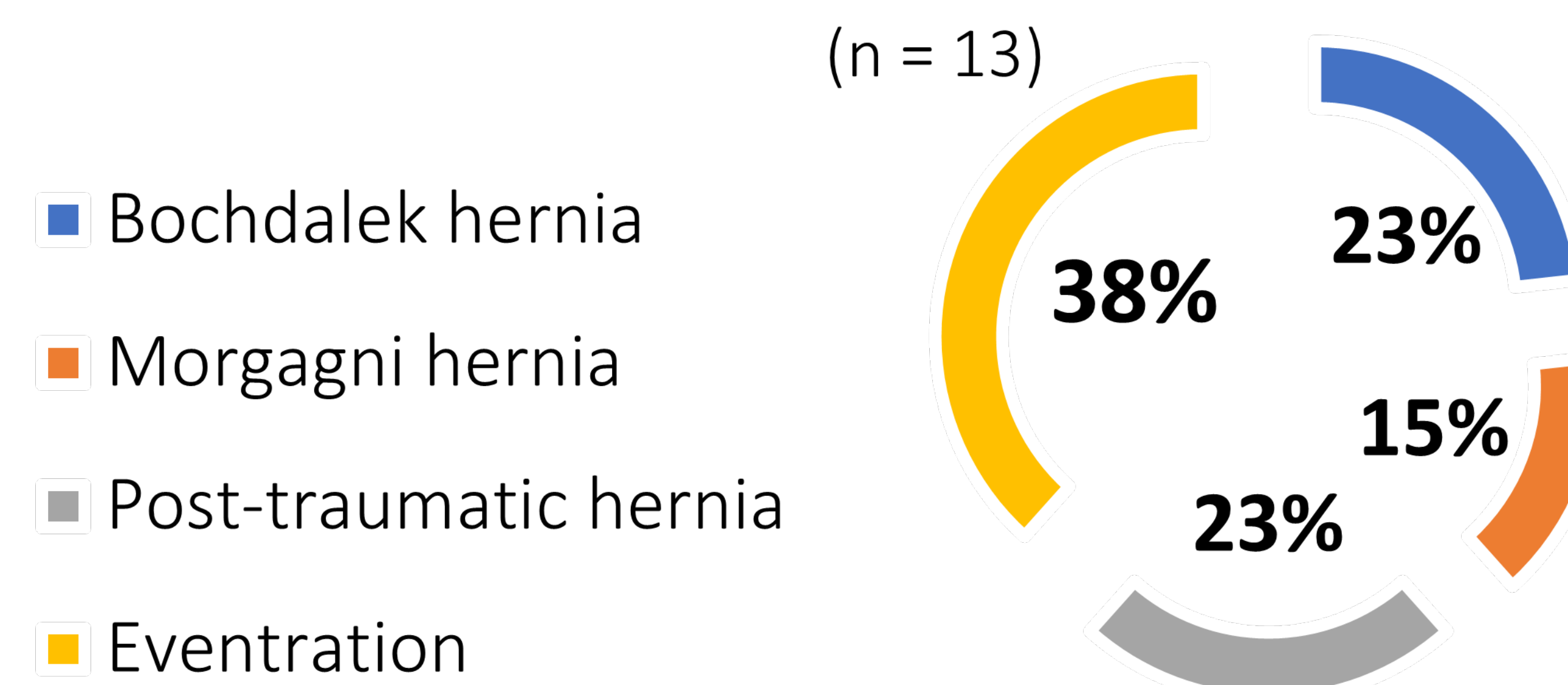
INTRODUCTION

- Diaphragmatic defects are overall rare and include hernias and eventrations.
- Given the risk of severe complications, all diaphragmatic defects should be ideally repaired through open or video-assisted surgery.
- Aim of study:** compare video-assisted versus open repair of diaphragmatic hernia in adults

METHODS

- Retrospective review of medical charts
- Inclusion:** adult patients undergoing diaphragmatic defects repair (hernia or eventration), either due to congenital or acquired etiology, from 2010 to 2019.
- Surgical approach groups:**
 - Video-assisted: laparoscopy / thoracoscopy
 - Open: laparotomy / thoracotomy
- Data collection:**
 - demographics
 - type and location of the defect
 - surgical-related variables
 - Early (≤ 30 days) / Late (>30 days) complications

TYPE OF DIAPHRAGMATIC DEFECT



TYPE OF SURGICAL APPROACH

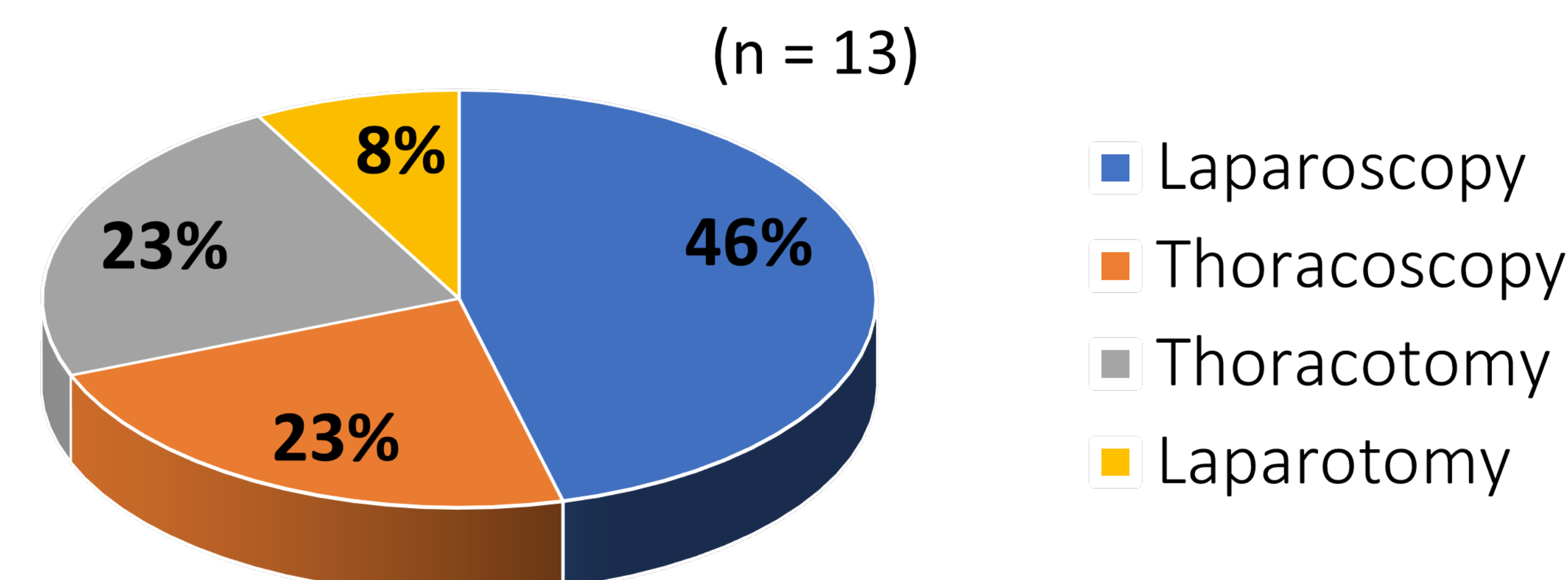


Table: Surgical-related variables and complications

TYPE OF APPROACH <i>% (n) or mean $\pm$ SD</i>	VIDEO-ASSISTED (n=9)	OPEN (n=4)	p-value
Blood loss (mL)	39 $\pm$ 98	53 $\pm$ 55	0.80
Surgery duration (min)	113 $\pm$ 73	154 $\pm$ 66	0.36
Intraoperative Complications	0 (0)	0 (0)	-
Intra-hospital Complications	33 (1)	66 (2)	0.20
Length of stay (mL)	3 $\pm$ 2	12 $\pm$ 9	0.0127
Early complications (≤ 30 days)	0 (0)	8 (1)	0.30
Late Complications (> 30 days)	15 (2)	0 (0)	1
Recurrence	8 (1)	0 (0)	1
Follow-up (months)	13 $\pm$ 12		

RESULTS

- Study population:** 13 patients
- Age:** 55 $\pm$ 11 years
- Gender:** male (69%, n=9) and female (31%, n=4)
- Most common preoperative symptom:**
 - Shortness of breath (77%, n=10)
- Type of diaphragmatic defects:**
 - Hernia: congenital (5) and post-traumatic (3)
 - Eventration (5)
- Surgical approaches:**
 - Video-assisted: laparoscopy (6), thoracoscopy (3)
 - Open: thoracotomy (3), laparotomy (1)
- Mean follow-up:** 13 $\pm$ 12 months

CONCLUSIONS

- Diaphragmatic defects present a potential risk of complication in adult patients and the majority of data consists of case reports.
- In our small cohort, video-assisted repair was associated with a significantly lower length of stay when compared to open-approach repairs.
- Diaphragmatic defects repair is a feasible and low-morbid procedure, with a low rate of recurrence.