

# Simple Diverticulectomy is Adequate for Management of Bleeding Meckel Diverticulum

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## INTRODUCTION

- MD is most common congenital anomaly of GI, persistence of omphalomesenteric duct <sub>1,2</sub>
- 2% prevalence, 2:1 male, symptoms at 2 years 3
- GIB is most common presentation <sub>3</sub>
- Diverticulectomy is sufficient to remove MD and SBR is not required

## **METHODS**

- Retrospective chart review from 2002 to 2017 with diagnosis of MD
- Primary outcome : post-operative hemorrhage during initial hospital stay
- Secondary objective: transfusion requirements, repeat surgery or endoscopy, GI hemorrhage after discharge, re-admission related to MD, overall post-operative events
- Fishers exact test to compare SBR and diverticulectomy groups

#### RESULTS

- No difference between SBR and diverticulectomy groups for primary outcome (p = 0.288)
- SBR had 17.6% post-operative event rate, significantly different (p = 0.021)
- Laparoscopic cases were not significantly different (p = 0.176)

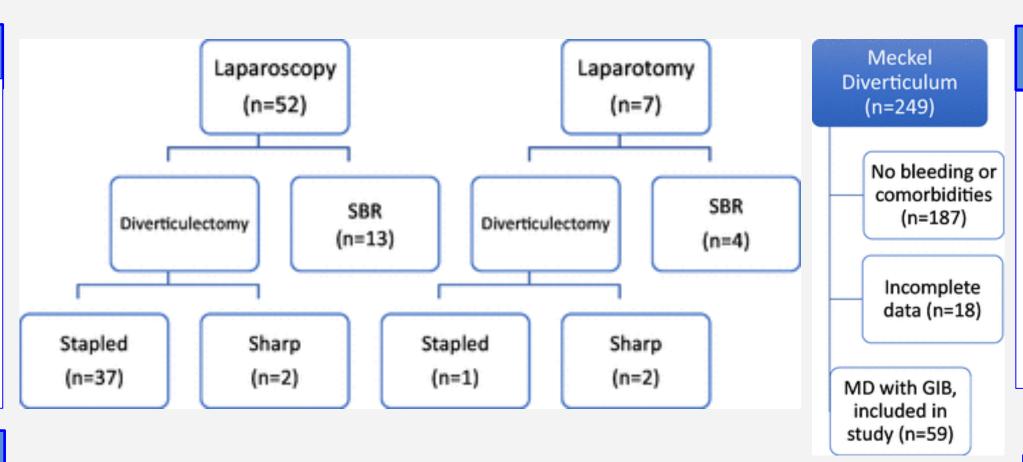


Figure on left shows the break down of laparoscopy versus laparotomy. The difference outcomes between the surgical methods was not significant (p= 0.176) Figure on right shows the exclusions due to no bleeding, comorbidities, or incomplete charts.

	Patients, n (%)	Age, years, mean (range)	Follow-up, days, median (range)
Diverticulectomy	42 (71.2%)	6.7 (0-18)	1976 (252-4925)
Stapled	38		
Sharp	4		
SBR	17 (28.9)%	6 (0-15)	2184 (449-3761)
p value		0.875	0.514

The p values represent the comparison of age at surgery and follow-up periods for the two groups

Table shows the mean age and mean follow-up period of patients who underwent a diverticulectomy and SBR.

MD = Meckel's Diverticulum GIB = Gastrointestinal bleed SBR = Small bowel resection

# **SUMMARY**

- Diverticulectomy and SBR have comparable outcomes in terms of bleeding, readmission, transfusion, and need for additional procedures
- SBR has higher complication rate than diverticulectomy, statistically significant relationship (p = 0.021)

#### LIMITATIONS

- Retrospective study may have selection bias
- Surgeon chose operative technique
- Large number of exclusions

## **CONCLUSION**

- Simple diverticulectomy, either laparoscopic or open, is safe treatment for bleeding MD
- Simple diverticulectomy has a lower complication rate that is statistically significant (p = 0.021)

# Credits/Disclosures/References

- 1. St-Vil D, Meckel's. J Pediatr Surg. 1991;26:1289-1292
- 2. Yachouchy E, Meckel's. J Am Coll Surg. 2001;192:658-662
- 3. Brown RL, Gastrointestinal. Semin Pediatr Surg. 1999;8:202-209