#### Lehigh Valley Health Network **LVHN Scholarly Works**

Department of Surgery

#### Is Placement of an Intra-Abdominal Drain Necessary after Hartmann's Procedure for Perforated Diverticulitis?

Mychailo Fulmes MD, PhD Lehigh Valley Health Network, Mychailo.Fulmes@lvhn.org

Avi S. Galler Lehigh Valley Health Network, Avi S.Galler@lvhn.org

David S. Bub Lehigh Valley Health Network, David S.Bub@lvhn.org

Robert J. Sinnott Lehigh Valley Health Network, Robert J.Sinnott@lvhn.org

John S. Park Lehigh Valley Health Network, John S.Park@lvhn.org

See next page for additional authors

Follow this and additional works at: http://scholarlyworks.lvhn.org/surgery



Part of the Other Medical Specialties Commons, and the Surgery Commons

#### Published In/Presented At

Fulmes, M., Galler, A. S., Bub, D. S., Sinnott, R. J., Park, J. S., & Philp, M. M. (2012). Is Placement of an Intra-Abdominal Drain Necessary after Hartmann's Procedure for Perforated Diverticulitis?. LVHN Scholarly Works. Retrieved from http://scholarlyworks.lvhn.org/surgery/16

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.



# Is Placement of an Intra-Abdominal Drain Necessary after Hartmann's Procedure for Perforated Diverticulitis?

M.Fulmes, A.S.Galler, D.S.Bub, R.J.Sinnott, J.S.Park, M.M.Philp, Colorectal Surgery Department

Lehigh Valley Health Network, Allentown, PA

# Background:

- Placement of intraperitoneal or pelvic drain after colon and rectal resection is addressed in term of affecting the anastomotic healing<sup>1</sup>.
- Hartmann's procedure (HP) for perforated diverticulitis is the standard of care in most instances. Intra-abdominal drain placement at the time of initial surgery is common, though no benefit has been proven. To date, there are no studies evaluating the routine use of pelvic drainage after HP. The purpose of this study was to examine the rate of postoperative abscess formation depending on the presence or absence of intra-abdominal drainage.

## Methods:

• A retrospective chart review was performed on all patients undergoing HP for perforated diverticulitis between November 2006 and June 2010 at the Lehigh Valley Health Network. The decision for placement of a closed suction drain at the time of initial surgery was at the discretion of the operating surgeon. Postoperative intra-abdominal abscess was diagnosed by computed tomography (CT) in those cases where there was a clinical suspicion. The incidence of postoperative abscess was compared in those patients with a drain versus those without a drain.

<b>Table 1.</b> Some characteristics and risk factors for abscess formation comparing two groups				
	Group with Drain (n=45)	Group without Drain (n=68)	p-value	
Age (mean)	61	56	0.057	
BMI (mean)	30.4	30.0	0.807	
Steroid Use	7 (15.6%)	11 (16.2%)	0.871	
COPD	2 (4.4%)	4 (5.9%)	0.917	
DM	12 (26.7%)	10 (14.7%)	0.182	
Blood Transfusion	6 (13.3%)	4 (5.9%)	0.298	
ASA IY	7 (15.6%)	9 (13.2%)	0.934	
Hichey Class IY	3 (6.67%)	8 (11.8%)	0.917	

<b>Table 2.</b> Frequency of postoperative abscess formation				
	Patients with Drain (n=45)	Patients without Drain (n=68)	p-value	
Postoperative Abscess	5 (11.1%)	4 (5.8%)	0.505	
No Abscess	40	64		

## Results:

- A total of 113 patients underwent HP during the study period. Forty-five patients had an intra-abdominal drain placed at the time of initial surgery, while 68 patients did not. There was no difference between the two groups with regard to age, sex, BMI, Hinchey classification and other co-morbidities (see Table 1).
- The overall incidence of intra-abdominal abscess in our study group was 7.96% (9/113). In the drainage group, 11.1% (5/45) of patients developed an abscess compared to 5.8% (4/68) in the undrained group (see Table 2). While the incidence of abscess was higher in the drainage group, the difference was not statistically significant (p=0.478).

### Conclusions:

• The incidence of postoperative intra-abdominal abscess after Hartmann's procedure for perforated diverticulitis was not affected by placement of an intra-abdominal drain. The incidence of abscess was actually higher in our group of patients with a drain, though it was not statistically significant. Routine placement of a drain is not necessary after Hartmann's procedure and may in fact be detrimental.

#### References:

1 Bozzetti F. Drainage and other risk factors for leakage after anterior resection in rectal cancer patients. Ann Surg. 2005 Dec;242(6):902; author reply 902-3. No abstract available.

