

INFORMATION PAGE

TITLE: HERNIA DISCOVERED AT THE TIME OF PANNICULECTOMY IN POST-BARIATRIC SURGERY PATIENTS: MISSING THE HERNIA AND REVENUE?

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NOTES: (if any)

Hernia discovered at the time of panniculectomy in post-bariatric surgery patients: missing the hernia and revenue?

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INTRODUCTION/BACKGROUND:

Increasing numbers of post-bariatric patients with excess skin and tissue has led to a tremendous rise in body contouring procedures. Despite a comprehensive evaluation, residual body habitus in these patients may limit the abdominal examination. As contouring procedures elevate tissue off the abdominal wall, a hernia may be discovered intraoperatively (Figure 1).

OBJECTIVE/HYPOTHESIS:

This study characterizes hernia found during body contouring surgery in post-bariatric patients and reviews coding and billing of incidentally found hernia.

METHODS:

Retrospective review was done on panniculectomy or abdominoplasty patients after bariatric surgery between 1/2007-5/2017. Hernia discovered during contouring surgery were included as listed on operative reports. Patients with known hernia prior to procedure were excluded. Incidental hernias were characterized including size, location, type of repair and recurrence. Coding and billing information for hernia found during body contouring surgery were reviewed.

RESULTS:

Six hundred and eighty-one post-bariatric patients (mean age 49 yrs, mean BMI 30.7) underwent abdominal-contouring surgery. Forty-five incidental hernias were seen in 36 patients. During contouring surgery, a single hernia was present in 26 patients, two or more were in 10 patients (Table 1). Average hernia size was 4.1 cm². Locations were epigastric 27 patients, para-umbilical/umbilical in 17, unspecified 11. Repair included primary sutures for 44 and mesh was placed for 1 hernia (Table 2). Average follow-up was 1.9 years. Recurrence was seen in 1 patient. Out of these 36 patients, reimbursement records were available for 21 patients (58.34%). Review of coding and billing of patients with hernia discovered at the time or panniculectomy revealed that hernia repair was coded and reimbursed in only 8 out of these 21 patients (38.1%) and average loss of payment in each non-coded event was \$3157.88.

DISCUSSION:

Bariatric patients have multitude of factors predisposing to hernia including preexisting hernia, laparoscopic trocar placement, anemia, COPD, wound infection, elevated BMI. These are small sized incidental hernias likely arising from port site defects and are almost always amenable for repair by plastic surgeons with low complication rates. Information pertaining to these hernias is relevant for preoperative planning, consent and have significant financial implications due to improper coding.

CONCLUSIONS:

This study characterizes incidental hernias discovered at the time of body contouring in post-bariatric patients. The surgeon should be aware of the possibility of discovering hernias during body contouring. Improved coding and billing of incidental hernia discovered at the time of contouring surgery is needed. New EMR systems facilitating coding and billing systems have the potential to capture such information and increase revenue.

TABLES:

Table 1: *Characteristics of patients found to have incidental hernia during post-bariatric abdominal contouring operations.*

Patient Characteristics	N	%
Bariatric Surgery	681	100
Patients with Incidental Hernia	35	5.3
Single Hernia	26	72.2
Multiple Hernia	10	27.8
Total No. of Hernia	45	
Mean age, yrs (range)	49	(25-64)
Mean Delta BMI	15.6	(8 – 42)

Table 2: *Intraoperative findings and repair type of incidentally discovered hernia.*

Intraoperative Findings		
Mean Hernia size, cm ² (range)	4.1	(0.25-24)
Location		
Epigastric, n (%)	17	(37.8)
Para-umbilical/Umbilical, n (%)	21	(46.7)
Not Specified, n (%)	7	(15.5)
Repair Type		
Primary Repair, n (%)	35	(97.2)
Mesh Repair, n (%)	1	(2.2)
Specialty Performing Herniorrhaphy		
Plastic Surgeon, n (%)	35	(97.2)
General Surgeon*, n (%)	1	(2.2)

*Included placement of mesh in this single patient

FIGURES:

Figure 1. *Image showing an incidental hernia intra-operatively at the time of panniculectomy in a post-bariatric massive weight loss patient.*



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