



RISK FACTORS OF POSTOPERATIVE INTRAABDOMINAL ABSCESS IN LAPAROSCOPIC APPENDECTOMY

HOSPITAL NAVAL BUENOS AIRES

Reta, Pablo; Garcia Gazzotto Guillermo; Galvarini, Martin.



Introduction

Laparoscopic appendectomy (LA) has obtained wide acceptance over the last two decades. However, several studies suggest there is an increased rate of intraabdominal abscess (IAA) after LA compared with open appendectomy (OA). Since postoperative IAA is associated with high morbidity, identifying predictive factors of this complication may help to prevent it. The aim of this study was to identify preoperative and intraoperative risk factors of IAA after LA.

Methods

From January 2005 to June 2015 all charts of consecutive patients underwent to LA were revised. Demographics, clinical and intraoperative variables were analyzed. Independent risk factors of postoperative IAA were determined by logistic regression analysis.

Results

A total of 1300 LA were performed. The mean age was 34.7 (14-94) years. Two-hundred twenty-five patients (17.3%) had complicated appendicitis with perforation and peritonitis. The conversion rate was 2.3% (30 cases). Complicated appendicitis was the main cause of conversion (p< 0.001). The average hospital stay was 1.6 (0-27) days. There were 30 (2.3%) postoperative IAA. They were treated with intravenous antibiotic (23%), percutaneous drainage (23%) or laparoscopic lavage and drainage (54%). In the multivariate analysis, body mass index (BMI) > 30 (p: 0.01), leukocytosis > 20,000 / mm3 (p: 0.02), perforated appendicitis (p <0.001) and operative time > 90 minutes (p: 0.04) were associated with the development of postoperative IAA (Table 1). There was no mortality in the series.

Table 1. Variables analyzed as risk factors of postoperative intra-abdominal abscess

Univariate analysis	p
Male gender	0.9
Age > 65 years	0.6
ASA ≥ III	0.4
BMI > 30	< 0.001
Leukocytosis > 20000 / mm3	< 0.001
Free fluid in ultrasound	0.4
Gangrenous / Perforated appendicitis	< 0.001
Operative time > 90 minutes	< 0.001
Multivariate analysis	p
BMI > 30	0.01
Leukocytosis > 20000 / mm3	0.02
Gangrenous / Perforated appendicitis	< 0.001
Operative time > 90 minutes	0.04

BMI: Body mass index
ASA: American Society of Anesthesiologists

Conclusion

Obesity, leukocytosis > 20,000 / mm3, perforated appendicitis and surgical time > 90 minutes would be independent predictors of postoperative IAA. These findings suggest that in the presence of any of these factors patients may require a close postoperative care in order to prevent or identify IAA after LA.