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BOWEL INJURIES DURING LAPAROSCOPIC CHOLECYSTECTOMY.

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ABSTRACT

OBJECTIVE: *To determine the frequency, site, cause, presentation, management & mortality of the bowel injuries during laparoscopic cholecystectomy (LC).*
DESIGN: *Descriptive case-series.*
PLACE & DURATION OF STUDY: *This is a prospective analysis of laparoscopic cholecystectomies performed at Surgical Unit I, Civil Hospital Karachi. A total of 1246 LCs were performed from 1st September 1997 to 15th June 2005.*
PATIENTS & METHODS: *There were 1246 patients in the study, who underwent LC. The inclusion criteria for LC were: patients of all ages & both sexes, symptomatic gallstone disease, recurrent attack while waiting for interval LC, normal levels of blood complete picture & liver function tests, & ultrasound abdomen demonstrating gallstone disease.*
RESULTS: *There were 2 cases of bowel injury, ie a frequency of 0.16%. One was serosal injury to colon & the other was duodenal perforation. Both were detected peroperatively, & managed by converting the procedure to open and primary closure of injury; duodenal closure was reinforced with omental patch. Postoperatively, the patient with colonic injury recovered well, but the patient with duodenal injury developed duodenal fistula which was managed conservatively. There was no mortality. Both cases of bowel injury were among the first 50 of the 1246 case-series.*
CONCLUSION: *At 0.16%, the frequency of bowel injuries during laparoscopic cholecystectomy is small; the risk of such injury is more during the learning curve. Timely detection during the operation results in successful outcome, with little or no mortality.*

KEY WORDS: Bowel injuries. Laparoscopy. Laparoscopic cholecystectomy. Cholelithiasis. Gall bladder.

INTRODUCTION

With the advent of Laparoscopic Cholecystectomy (LC) in France in 1987, the management of biliary disease has dramatically changed. Currently, LC is the gold standard treatment of gallstones.[1, 2] It has gained favour among surgeons and popularity among patients as it offers minimal surgical trauma, reduced hospital stay and early resumption of normal working activity.[3, 4] But, the procedure time is prolonged[5, 6] & injuries to intra-abdominal viscera occur with rates of 0.03-0.5.[3] Bowel injury is an uncommon but severely hazardous complication.[7] It is associated with a high morbidity & mortality rate.[8]

The time at which laparoscopy induced bowel perforations are recognized is significant. Early perforation develops during or directly after surgery; late perforation arise a couple of days later. The later is probably caused by local inflammation as a reaction to damage inflicted during laparoscopic dissection. Insertion of a Veress needle or a trocar may damage the bowel during creation of pneumoperitoneum. The coagulator or grasping forceps may cause bowel injury during the operation.[8, 9] Patients at risk include those with adhesions or a previous laparotomy. This study aims at assessing the bowel injuries of LC. Our series of 1246 patients treated in one surgical unit over eight years period, represents a homogeneous experience: indications, technique, criteria for converting the procedure and the treatment of complications are well standardised.

PATIENTS & METHODS

This descriptive case-series study includes 1246 patients who underwent LC for symptomatic gallstones at Surgical unit-1, Civil Hospital Karachi. This study was done prospectively from 1/9/1997 to 15/6/2005.

The inclusion criteria for LC were: patients of all ages & both sexes, symptomatic gallstone disease, recurrent acute cholecystitis while waiting for interval LC, normal levels of blood complete picture (CP) & liver function tests (LFTs), & ultrasound abdomen (US) clearly demonstrating gallstone disease, with absence of any signs suggesting

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