COMPLICATIONS OF DIAGNOSTIC LAPAROSCOPY FOR GYNAECOLOGICAL INDICATION

AMBER TUFAIL, FARRUKH NAHEED
Department of Obstetrics & Gynaecology, Baqai Medical University, Karachi

ABSTRACT
Objective: *To determine the frequency of bowel injury during diagnostic laparoscopy done for gynaecological conditions.*
Study Design: *Cross sectional study.*
Setting & Duration: *Department of Obstetrics & Gynaecology, Fatima Hospital, Baqai Medical University, Karachi from January 2004 to December 2008.*
Methodology: *A total of 78 patients underwent diagnostic laparoscopy. A thorough record of patient's data was performed including history, examination and investigations on a performa. In cases of bowel injury following variables was noted: site of injury, time of diagnosis, cause, association with any preoperative variable, management, complication, outcome and experience of the surgeon. The data was compiled and analyzed.*
Results: *The frequency of bowel in jury is 1.28%.A total of 78 diagnostic laparoscopies were evaluated in this study. Bowel injury was found in only one case, reported as postoperative complication. There were no pre operative risk factors detected in the patient. Exploratory laparotomy revealed injury to ileum which was 2 feet proximal from ileo-caecal junction.Anastomosis done. Patient recovered well. The injury occurred during the first 20 cases of the 78 series diagnostic laparoscopy, i.e. during the learning curve.*
Conclusion: *At 1.28%, the frequency of bowel injury during diagnostic laparoscopy is small; the risk of this injury is more during the learning curve. Timely detection results in successful outcome, with little or no mortality and morbidity.*

KEY WORDS: *Laparoscopy, Bowel Injuries, Complications*

INTRODUCTION

The first description of endoscopy is attributed to Phillip Bozzini in 1805 who attempted to observe the interior of urethra with a simple tube and candle light. Hyteroscopy was the first gynecologic endoscopic procedure to be attempted. In 1869, Pantaleoni used a cystoscope to identify polyps in a patient complaining of irregular vaginal bleeding. It was not until 1910 that Jacobaeus introduced a cystoscope into the peritoneal cavity and coined the term laparoscopy.[1] In the last 20 years endoscopic surgery has expanded dramatically. Laparoscopy has revolutionized the management of various general surgical, urological and gynaecological conditions. In many ways, gynaecologists were the leaders in this change in practice. 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.[2-6] Bowel injury is an uncommon but severely hazardous complication. It is associated with a high morbidity and mortality. The reported risk is 0.0 – 0.7/1000 procedure.[7-9]

Correspondence:
Dr. Amber Tufail, Associate Professor Obs & Gynae, Baqai Medical University, Karachi.
H. No. 5C-21 A/6, North Nazimabad, Karachi.
Phones: 0331-2368381.
E-mail: amber_tufail2000@yahoo.com

METHODOLOGY

This descriptive case-series study includes patients who underwent diagnostic laparoscopy in the department of Obstetrics and Gynaecology at Fatima Hospital, Baqai Medical University. This study was done prospectively from 2004 to 2008.

Diagnostic laparoscopy was done in 78 patients. The

inclusion criterions for diagnostic laparoscopy were patient of all ages presenting with acute or chronic pelvic pain and subfertility.Exclusion criterions were patient with intraperitoneal haemorrhage (e.g. shock), severe cardio-respiratory disease, massive obesity, multiple abdominal incisions, and large abdominal mass. A thorough record of patient's data was performed including the history and clinical examination, laboratory investigations, ultrasound abdomen, operative details, postoperative course and follow-ups. The variables noted and analyzed includes: the demographic data , body weight , presenting complaint , previous history of any abdominal surgery, associated medical disease, abdominal tenderness, abdominal ultrasound , operative technique, operative details, postoperative course and follow-ups. In cases of bowel injury following variables were noted: site of injury, time of diagnosis, cause, association with any preoperative variable, management, complication, outcome and experience of the surgeon.

RESULTS

The frequency of bowel in jury is 1.28%. A total of 78 diagnostic laparoscopies were evaluated in this study. Bowel injury was found in only one case, reported as postoperative complication. The injury occurred during the first 20 cases of the 78 series diagnostic laparoscopy, i.e. during the learning curve.

In a 30 years old female patient, para 0+1 underwent diagnostic laparoscopy due to secondary infertility. On second post operative day patient complained of nausea and had two episode of syncope. At the same time distension was also noticed in the lower abdomen. Exploratory laprotomy was planned. There was a perforation identified in the small bowel which was 2 feet proximal from the ileo-caecal junction. Margins were freshened up, and anastomosis was done with Vicryl 2/0. Peritoneal lavage was done with normal saline. The patient recovered well and was discharged on the 14th postoperative day. This was case no 17 of the total 78 laparoscopies. There were no pre operative risk factors.

DISCUSSION

Endoscopy surgeries which are referred to as 'Minimal Access Surgery' (MAS) has affected every area of gynaecology, from diagnosis to therapy, from reproductive medicine to urogynaecology to oncology. Endoscopic surgery do present new challenges.[10] There are inherent risks in many laparoscopic procedures. Risk of injury to the bowel is one of the is one of the hazard of the procedure. The first principle of reducing complications is good training including coverage of the theory and practice of the surgical techniques involved. Many complications occur because this essential aspect has been overlooked or ignored.[2]

Indications of diagnostic laparoscopy were for the evaluation of patient presenting with acute or chronic pelvic pain to diagnose ectopic pregnancy, pelvic inflammatory disease, endometriosis, adnexal torsion, and other intrapelvic pathology, infertile patients to evaluate tubal and peritoneal factors, and patients with amenorrhea to elucidate anatomy and exclude anomalies of the Mullerian or Wolffian duct.[1]

In this study, the frequency of bowel injury is 1.28%; there was only one case of injury to the ileum. The incidence of bowel injuries during laparoscopy has been variably reported by operators, Sherenk[11] 0.21% bowel injury, Bishoff[12] 0.2% bowel perforation, and McKeman[13] 0.16% bowel injury. Although we had reported only one case of injury to the bowel which was encountered in the initial cases during the learning curve, but the frequency of bowel injury in this study is higher as compared to the other operators.

Most of the bowel injuries were access related and caused by either a trocar or a veress needle.[14,15] Steps to minimize the occurrence of this complication include proper use of the laparoscope, good anesthesia , gas distension of the abdomen, and correct positioning of the patient.

CONCLUSION

At 1.28%, the frequency of bowel injury during diagnostic laparoscopy is small; the risk of this injury is more during the learning curve. Timely detection results in successful outcome, with little or no mortality and morbidity.

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