ORIGINAL ARTICLE

Early Experience of Laparoscopy in Emergency Operation Theatre at Lahore General Hospital, Lahore

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ABSTRACT

Laparoscopic surgical intervention has revolutionised the exposure of General surgeons in both diagnostic as well as therapeutic procedures in surgical emergency department at Lahore General Hospital, Lahore. It has helped the surgeons to make the Diagnosis with Laparoscope and then proceed in cases of blunt abdominal trauma, mesenteric bowel ischemia, ruptured ectopic pregnancy, sealed adhesion obstruction and duodenal ulcer perforation. At the same time Laparoscope in emergency has helped the patients of acute appendicitis and abdomen TB patients by their post operative pain, hospital stay, scar mark and early return to normal routine after surgery. It has really proved excellent in all the patients who underwent surgery with its help but still more data is needed to prove its value.

Keywords: Ischemia, laparoscopy, abdominal trauma

INTRODUCTION

1980s was the decade of revolution in the context of general surgery when Laparoscope was introduced and new era of Laparoscopic surgery started. This led to the minimal scar marks, lesser number of wound infections, and reduction in post operative pain, hospitalization and early return to work[1]. It started from diagnostic gynaecological procedures and was soon adopted by the general surgeons who took the charge started with cholecystectomies, then hysterectomies[2]. Later on it entered into the new horizon of appendectomies, colorectal surgeries and upper GI interventions for stomach and esophagus[3,4]. In the recent days advanced laparoscopic surgical procedures for both general surgery as well as Bariatric surgery are being done[6]. Initially Laparoscope was limited to the elective operation theatres but as the time passed, the experience and exposure of the surgeons also expanded[5]. This led the surgeons to step forward to start laparoscopic interventions in emergency operation theatres for emergency procedures like acute appendicitis, perforated duodenal ulcers, ruptured ectopic pregnancies and ruptured ovarian cysts[7]. At the same time laparoscopic diagnostic procedures started to take place for sub acute intestinal obstructions, abdominal tuberculosis, acute pancreatitis, mesenteric ischemia, blunt abdominal traumas etc.

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METHOD AND MATERIAL

All the patients who presented in surgical emergency of LGH were provisional diagnosed with either localised or diffuse peritonitis were included in the study. All the required investigations were done before the surgical intervention. After making the diagnosis, informed consent was taken. Patient's bio data, findings, procedure, complications and management with results were entered in a Performa.

RESULTS

Study period was from February 2017 to August, 2017. Out of 50 laparoscopic procedures (100%), 17(34%) were Diagnostic Laparoscopies and 33(66%) were Laparoscopic appendectomies. Amongst the patients with acute appendicitis 33(100%), 12(36%) were with grade 2 appendicitis and 21 patients (64%) were with grade 3 appendicitis. The patients with acute appendicitis were discharged from the hospital with a mean hospital stay of 8 Hours and they returned to their routine work after 5th day of surgery. In the patients with appendicitis VAS for pain was from 2 to 3. Diagnostic Laparoscopy was performed in 17(34%) out of 50 patients. 3(6%) Patients were with tuberculous abdomen, 01(2%) with sealed adhesive enteric perforations, 01(2%) blunt abdominal trauma with liver injury, 01(2%) with right ruptured ectopic pregnancy, 01(2%) was with uterine perforation, 2(4%) were with perforated appendix, 08(16%) presented with penetrating abdominal injury. Out of 17(100%), 7(41%) were proceeded with midline abdominal incision rest 10(%) were managed laparoscopically.

Diagnosis	Diagnostic role	Therapeutic Intervention	Hospital stay	Post op pain	Return to work	Scar mark
Blunt/Stab Abd Injuries	Visceral Injury/preperitoneal breech	Laparoscopic management/ Exploration/ no exploration	5 days	4	30 days	Laparotomy scar
Intestinal Obstruction	Sealed multiple ileal perforations adherent in pelvis/Strictures/ Bands/DUP/ Mesenteric Ischemia	Laparoscopic/ Laparotomy	7 days	4	22 days	Midline scar
Acute appendecitis	More in females	Lap Appendectomy	6-8 hrs	2-3	5 days	Good
Perforated appendix	More in females	Lap appendectomy	2 days	3	7 days	Good
SAIO	Intestinal TB/adhesions	Omental biopsy n ascetic tap	5	2	-	Good
Ruptured ectopic pregnancy	Confirmation of the ruptured tube	Laparoscopic intervention	6 hrs	2	8	Good

DISCUSSION

The introduction of Laparoscope in the Emergency Operation Theatre has helped the surgeons a lot in making their decisions regarding patient exploration, morbidity, hospital stay, post operative pain, wound infection etc. Both diagnostic as well as therapeutic procedures were performed in emergency operation theatre. Out of 50 (100%), Laparoscopic appendectomies were done in 33(66%) patients whereas 17(34%) patients underwent Diagnostic Laparoscopies. Leppaniemi A and Haapiainen R published his study regarding Diagnostic laparoscopy in abdominal stab wounds in 2003 and concluded that diagnostic laparoscopy has advantage over exploratory laparotomy for better patient care. In my study amongst the patients with acute appendicitis 33(100%), 12 (36%) were with grade 2 appendicitis and 21 patients (64%) were with grade 3 appendicitis. Diagnostic Laparoscopy was performed in 17(34%) out of 50 patients. 3(6%) Patients were with tuberculous abdomen, 01 (2%) with sealed adhesive enteric perforations, 01 (2%) blunt abdominal trauma with liver injury, 01 (2%) with right ruptured ectopic pregnancy, 01(2%) was with uterine perforation, 2(4%) were with perforated appendix, 08(16%) presented with penetrating abdominal injury. Out of 17(100%), 7(41%) were proceeded with midline abdominal incision rest 10(%) were managed laparoscopically. Berci G et al conducted a study regarding Emergency laparoscopy in 1991 and claimed that emergency laparoscopy helped the patients as well as surgeon for patient morbidity. Similarly many surgeons like Gadacz TR; Filshie M; Johnson N et al; Kienle P published their studies in different journal regarding introduction of Diagnostic as well as Therapeutic Laparoscopy in Emergency Operation theatres.

CONCLUSION

Emergency laparoscopic surgery is safe and feasible for the surgeon both for the diagnostic and therapeutic purposes, benefiting the patients with timely diagnosis, shorter hospital stay, decreased pain, lesser chances of wound infection, cosmesis and early return to work.

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