

Comparison of Laparoscopic with Mini Cholecystectomy Experience at C M H Multan

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ABSTRACT

Out of 232 patients with gall stones, presenting in C M H Multan over a period of three years, 152 cases who were either offered minicholecystectomy (M C) (n=114) or Laparoscopic Cholecystectomy (L C) (n=42) were randomly studied to compare & evaluate declared advantages of L C over MC. In our experience it was found out that L C is relatively time consuming & costlier than M C, but it offers better cosmesis, lesser post operative pain & rapid return to normal activity. Our study showed mean operating time of 1.5 hours for L C as compared to 42 minutes for MC, a conversion rate of 4.75% for L C to 1.75% in M C group. Mean hospital stay was 02 days lesser for L C & return to normal activity was quicker by 07 days. Due to high selective criteria we did not encounter any biliary injury in either group.

Key words: Laparoscopic Cholecystectomy, Minicholecystectomy, Gall Stones

INTRODUCTION

Until recently open cholecystectomy was the only successful way to deal with gallstones. But over last 15 years various other modalities of treatment including dissolution & lithotripsy were introduced, which were rapidly surpassed by advent of laparoscopic cholecystectomy (L C), first performed in 1988. When Typhoid Mary was offered removal of gall bladder in 1908. Mortality associated with cholecystectomy was nearly 90%¹. Whereas the modern day surgeon puts more emphasis upon minimal somatic & psychological trauma, early recovery & cost effectiveness, LC has become the treatment of choice for gall stones disease^{2,3}. It is being performed at various centers in country^{4,5} since long at C M H Multan for the last five years.

Our study was conducted over a period of three years in C M H Multan to determine the benefits of Laparoscopic Cholecystectomy/ Mini Cholecystectomy.

PATIENTS AND METHODS

C M H Multan is 650 bed hospital & serves as base hospital for population of southern Punjab dependent upon Military Hospitals. The Surgical department runs three operation days per week. All the patient included in this study were informed before admission. 152 patient were included in this study, which covers the period from Jan 98 to Dec 2000. Forty two patient (26.9%) underwent laparoscopic cholecystectomy & the remaining 114 (73.04%) were

operated using Minicholecystectomy technique without using drain. Out of 156 patients 138 (88.4%) were females & 18 (11.55) males. The usual symptomatology included flatulent dyspepsia & pain right hypochondrium. 36 (23%) patients had a history of acute attack in the past. Exclusion criteria of patient from study included mass in the region of gall bladder, common bile duct (C B D) stones or indication to explore C B D. The patient presenting with acute cholecystitis & in patient where pneumoperitonium was contraindicated, were not offered LC. On admission detailed history was taken & physical examination was performed & finding recorded along with investigations. Details of operative procedures, conversion rate & post operative complication were also recorded. Only 108 (69%) patient could be followed up to 03 months. All patients were administered prophylactic antibiotics, which included cefuroxime or cefotaxime.

Technique: Laparoscopic cholecystectomy was performed using 04 ports. Initially we followed the American approach with patient lying flat & both Surgeon & Camera operator standing on the left side. but later due to difficulty to operate the camera smoothly, the French approach, i.e., patient in Lloyd⁷ & we found it technically much better. Mini cholecystectomy was performed via small transverse incision either splitting the Rectus muscle or sparing it with medial displacement. To minimize trauma while keeping the wound small in MC, we used certain specialized instruments including Karl Storz Retractor with fiberoptic light carrier, Pilling Haemostatic Clip applier Down's Knot Pusher to deal with cystic duct & artery.

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RESULTS

Forty two patients underwent Laparoscopic cholecystectomy during the study period & none had acute pain. 39(92.8%) patients had calculous disease & 3(7.1%) acalculous cholecystitis in quiescent phase. In the mini-cholecystectomy group 98 (85.8) Suffered from calculous disease, whereas 1.6(14.2%) from acalculous. Overall 36 patients (23%) had history of acute attack in recent past & all were placed in minicholecystectomy group. According to the age maximum patient offered Laparoscopic or mini-cholecystectomy were in there fifth decade (41-52), 26(61.9) & 57(50%) respectively. Mean operating time for L C was 1.5 hours & 0.6 hours for MC. Our conversion rate in L C group was (4.7%) as 2 patients were converted to open method. One due to uncontrolled hemorrhage from an aberrant branch of hepatic artery & second due to gross adhesion in the region of calot's triangle.

In the M C group conversion to open method was (1.75) & in both cases patients had past history of acute attacks & decision was taken on account of gross adhesion making dissection difficult. In our study none of the patient suffered from bile duct injury. Wound Infection was higher in L C group, 3(7.1%) developed post operative wound infection, which was fortunately minor & did not require any procedure except dressing & antibiotics. In the M C group wound infection rate was 4(3.5%), one patient developed abscess requiring drainage & secondary suturing. One patient in M C group also developed bile collection, which required reopening & drainage. No patient developed incisional hernia in either group, which were followed up. It was observed that post operative analgesic requirement were less in L C group but incidence of postoperative paralytic illness was higher 3(7.1%).Average hospital in LC group was 3 days whereas it was 05 days in MC group & patients returned to normal routine in 10 days in LC & 16 days after MC. As far as cost effectiveness was concerned LC was costlier by Rs.3000 on the average due to higher procedure charges.

DISCUSSION

After introduction of LC in 1988, it gained rapid popularity amongst the surgeons who were enamored & patient due to cosmesis & unusually high publicity in mass media throughout the world.

The LC showed a major improvement over open cholecystectomy^{2 3}. Minicholecystectomy was also a comparable method devised & improved using various techniques including rectus displacement⁸ & using stapler instead of sutures to ligate cystic artery & duct. In developing countries like ours where expenditures on health are still meager MC is still cheaper to LC & a comparable alternative.

Another important factor, which differ our experience from developed world, is that we have ample patient pool & lot of experience in open cholecystectomy prior to undertake LC. Still any congenital anomaly encountered can be taken care by using fundus first technique^{4 5} as in OC or MC to avoid billiary duct injury. our initial experience showed a relatively high conversion rate due to infrequent use of technique as we were bound by the work loading our hospital & higher cost of equipment was also a concern. In our experience LC be considered treatment of choice in dedicated centers with good setup. But in developing nation still MC keeps its place as a procedure of choice as depicted in our series. Proper training of surgeons in open method be made a prerequisite

Prior to undertake LC as mode of treatment. LC is still not cost effective in developing countries & can be offered only to financially strong patients.

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