

Most of the contraindications for laparoscopic cholecystectomy have become relative, because of improvements and refinements in techniques and instrumentation which allows laparoscopic exploration of the common bile duct⁷.

In a large number of cases we modified our approach to a 3 port technique. We could still carry

out a satisfactory dissection with only one 5 mm port used both for traction of Hartmann's pouch and display of Calot's triangle.

In our series we did not encounter a single common bile duct, duodenal, or major vessel injury. There was no serious wound infection or incisional hernia.

References

1. **Wayand W.U, Guter T** "Lap Chole": The Austrian Experience. Journal of Royal College of Surgeons of Edinburgh. June 1993 Vol-38 No.3 pp 152.
2. **Gerald M Larson et al**: Multipractice analysis of laparoscopic cholecystectomy in 1983 patients. The American Journal of Surgery Vol163 February 1992 pp 221.
3. **Berggeren U et al**: Laparoscopic versus open cholecystectomy. Hospitalization, sick leave, analgesic and trauma responses. British Journal of Surgery 1994 81, pp 1362 - 1465.
4. **Thomas R. Gadaes M.D. Mark: A Talamini M.D.** Traditional versus Laparoscopic cholecystectomy. The American Journal of Surgery Vol 161 March 1991 pp 336.
5. **Stiff G et al**: Long term pain: less common after laparoscopic than open cholecystectomy. British Journal of Surgery 1994, 81, pp 1368 - 1370.
6. **Baltas B, Lazar G.Y, Vattaty P and Vangel R**: Complications after Laparoscopic cholecystectomy. British Journal of Surgery, 1994, 81 pp. 8.
7. **Jaffrey H. Peters, M.D. et al**: Complications of laparoscopic cholecystectomy. Surgery 1991 Vol 110 pp. 769

or radiological evidence of stones in the common bile duct, and those with jaundice were excluded from the study. In addition patients with anaesthetic contraindications were also dropped from the study.

The indications for laparoscopic cholecystectomy were the same as for open traditional cholecystectomy. Most of our patients who underwent the procedure had chronic cholecystitis except for 16, who presented with acute cholecystitis. Clinical features were as shown in Table 2.

All patients were operated under general anaesthesia with muscle relaxation. A standard four port technique was used in 49 cases, where as a three port technique was employed in the remaining 51 cases. Carbon dioxide was used to insufflate the peritoneal cavity. The use of endo diathermy was kept to a minimum. Peroperative cholangiogram was not performed in any of our cases.

All patients received 3 prophylactic doses of intravenous cefuroxime. A drain was placed in the gall bladder bed only in selective cases.

Results

97 of our patients had a successful laparoscopic cholecystectomy. Average operating time was 40 minutes Table 3. The average hospital stay was 72 hours Table 4.

Of all the specimens that were sent for histopathological examination two revealed adenocarcinoma of gallbladder.

Table 3: Operating Time

Operation time in Minutes	n =
upto 20	1
21 to 40	50
41 to 60	31
61 to 80	16
> 80	2

We had a total of 3 conversions to open cholecystectomy. Of the three conversions, the first had extensive intra abdominal adhesions due to previous surgery. In the second case, the cystic artery clip slipped off, this gave rise to profuse uncontrollable haemorrhage. The last one was a obese woman in whom we could not enter the peritoneal cavity with the standard cannulae.

Table 4: Hospital stay

Stay in Days	n =
1 - 2	41
3 - 4	36
5 - 6	11
7 - 8	8
> 8	1

Three patient underwent laparotomy for biliary leakage. In the first the cystic duct clip had slipped off, in the remaining two, the cystic duct had sloughed off. Two of the three recovered satisfactorily, while the third died due to aspiration pneumonia on the 3rd day.

Discussion

Our experience of 100 cases of laparoscopic cholecystectomy has convinced us that it is a far superior technique for treating cholelithiasis. A successful outcome is dependent on proper patient selection, meticulous technique, and an accepting attitude towards conversion to open cholecystectomy⁵.

Advantages for patients in terms of pain are excellent as none of our patients required more than two doses of parenteral analgesics. Hospitalisation and recovery time were significantly shorter resulting in early return to work. Although the initial cost of the equipment is high, taking all the other advantages into consideration, laparoscopic cholecystectomy is a much more cost effective procedure as compared to open cholecystectomy, in the long term. The main benefit is minimal tissue trauma and superb cosmetic results. Blood loss is also minimal, not a single of our 97 successful cases required a blood transfusion. Laparoscopy has the added advantage that a thorough inspection of most abdominal viscera can be carried out. By the addition of a 5 mm port in the right iliac fossa a concomitant appendectomy can also be performed.

We found that the technique is not difficult to master, provided one has adequate experience in open biliary surgery, and spent a sufficient period of time assisting and working on simulators. It is important to be fully familiar with the instruments and techniques before undertaking such an operation⁶. Ideally training should commence at senior registrar level. For some reason laparoscopic surgery appeals more to the younger generation of surgeons.

Laparoscopic Cholecystectomy : Experience of 100 Cases in Peshawar

M Aurangzeb M Kabir M A Jan T Saeed
Hayat Shaheed Teaching Hospital, Peshawar
Correspondence to Dr Mahmud Aurangzeb

Over an eighteen months period one hundred consecutive patients were admitted for laparoscopic cholecystectomy, including elective and emergency cases. Laparoscopic cholecystectomy was accomplished successfully in 97 cases. Conversion rate was 6 percent. In our series we did not encounter any common bile duct, duodenal, or major vessel injury, serious wound infection or incisional hernia. Average operating time was 40 minutes and average hospital stay was 72 hours. Reoperation was done in three cases for biliary leakage from the cystic duct. One patient died.

Keywords: laparoscopic cholecystectomy.

Minimally invasive surgery has revolutionized operative treatment of gall bladder disease. The benefits to patients in terms of pain, hospitalization, recovery time, costs, and cosmetic results are considerable, prompting Cushieri to state "... there have been few instances in the history of surgical practice where the benefits of a procedure became so clearly manifest within such a short period of time"¹.

Laparoscopic cholecystectomy has rapidly and radically changed the surgical treatment of gall stone disease². It has steadily been established as the treatment of choice for cholelithiasis³.

First performed in France by Mouret, Qubois and Persatt in 1987, it has since gained an immense world wide popularity. The traditional open cholecystectomy was first performed in 1882, by Langenbuch, a German surgeon, and through the years it has been the standard treatment for gall stone disease⁴. The first laparoscopic cholecystectomy was performed in Pakistan in 1991 by a visiting American surgeon. The first such procedure at Hayat Shaheed Teaching Hospital in Peshawar was carried out by a visiting surgeon from Singapore, in 1992.

Materials and Methods

We report 100 cases who were admitted to undergo laparoscopic cholecystectomy between 24.7.93 to 6.2.95. The operation was accomplished successfully in 97 cases. The age of the patients ranged between 18 to 80 years, with a median age of 53 **Table 1**. the ratio of female to male patients was 8:1

All patients underwent routine investigations, including LFT's. The mainstay of investigations was

Table 1: Age distribution

Age (years)	n =	% age
upto 20	2	2
21 - 40	29	29
41 - 50	51	51
51 - 60	13	13
61 - 80	5	5

an ultrasonographic examination of the abdomen to confirm cholelithiasis or an abnormal gall bladder. Only patients suspected of having peptic ulceration had upper G.I. endoscopy. Patients with biochemical

Table 2: Clinical Presentation

Symptoms	n =	% age
Pain	91	91
Fever	13	13
Post-Prandial fullness	53	53
Belching	23	23
Heart burn	25	25
Nausea	29	29
Vomiting	23	23