

MEDICAL REPORT

Laparoscopic Cholecystectomy: Initial Report from the Medical Services: Bahrain Defence Force

Khalid Al Khalifa, FRCSI*

Tariq Hameed, FRCSI*

Enda WM McDermott, FRCS**

James J Murphy, FRCSI**

ABSTRACT

This report is our early experience with laparoscopic cholecystectomy for 20 symptomatic cholelithiasis patients. All patients had a pre-operative history consistent with symptomatic gallstone disease which was confirmed with sonography. There was no mortality or morbidity associated with using this technique. Postoperative analgesic requirements are remarkably low. Most patients were discharged during the first postoperative day and resumed normal activities within one week. It was concluded that laparoscopic cholecystectomy resulted in reduced postoperative pain and hospitalisation, and a more rapid return to normal activity.

Laparoscopic cholecystectomy was first performed by Mouret in 1987, and first described in the literature by Dubois in 1989.^{1,2} Since the introduction of laparoscopic cholecystectomies, it has rapidly become the procedure of choice for symptomatic cholelithiasis.

The advantages of laparoscopic cholecystectomy include reduced postoperative pain, early discharge from hospital with a rapid return to normal activity, improved cosmesis and better cost effectiveness. One disadvantage of this type of surgery includes the safety of the patient, as the reported case incidence of Common Bile Duct (CBD) injuries is 1% with this procedure while it is only 0.2% for open cholecystectomies.^{3,4} There may be potential problems during the initial stage of introducing the technique to the hospital's surgical programme.

This is a report of the first 20 operations utilising laparoscopic cholecystectomy techniques in the Bahrain Defence Force (BDF) Military Hospital, Bahrain.

METHODS

All patients operated upon were diagnosed to have symptomatic gall stones, which confirmed by ultra sound. Patients who were pregnant, or presented with CBD stones or acute cholecystitis were not considered candidates for this type of surgery.

* Medical Services
Bahrain Defence Force
State of Bahrain

**Department of Surgery
St Vincent's Hospital and
University College Dublin
Dublin, Ireland

All patients were operated on during a two week period. The last two authors performed one operation each. The remaining operations were performed by the other two authors.

There were three males and seventeen females. The mean age was 34.5 years (range 14-85 years), and the mean weight was 77.5 kg (range 44-99.5 kg). This study included three sickle cell disease and five previous abdominal surgery patients.

An Olympus laparoscope was used in these procedures (KeyMed). Patients were operated on in the supine position. A urinary catheter was not passed as patients were requested to void before transportation to the theatre. A general anaesthesia was used on all patients. A nasogastric tube was passed and the stomach decompressed. A single dose of perioperative cephalosporin was given. Four portals were used (Surgiport, US Surgical). Electrocautery was used for dissection of the gall bladder.

The procedure was initiated by inserting a veress needle just below the umbilicus. The pneumoperitoneum was established using an automatic insufflator set at a maximum pressure of 15mm Hg of carbon dioxide. The first trocar (Surgiport, US surgical) was inserted and a diagnostic laparoscopy was performed. Three additional trocars were inserted using direct laparoscopic vision:- 1) 2cm under the xiphisternum sternum, 2) 2cm below the costal margin of the mid-clavicular line, and 3) 2 cm above the iliac crest of the anterior axillary line. An endo clip was used to ligate the cystic duct and artery.

The nasogastric tube was removed at the end of the procedure. Patients were allowed unrestricted oral fluids on the evening of the operation and resumed a normal diet on the following morning.

RESULTS

The average operation time for the 20 laparoscopic cholecystectomies was 65 minutes (range 40 - 100 minutes). Post operative days to discharge ranged from 1 to 3

days with a mean of 1.3 days. Return to full activity ranged from 1 to 22 days (mean 5.5 days).

Pethidine was prescribed as a post operative analgesia, the mean dosage was 42.5 mg (range 0-200 mg).

A one month post operative review revealed that all patients were in satisfactory condition. One patient had required readmission for abdominal pain but was discharged the next day. There were no other complications and there was no conversion to open cholecystectomy.

DISCUSSION

This report shows that laparoscopic cholecystectomy can be introduced safely and rapidly to a hospital as a new procedure where the existing surgeons are experienced with open cholecystectomy and laparoscopic techniques and have had the appropriate simulator training for the application of this procedure.

The short postoperative inpatient hospital stay and an early resumption of normal activity are comparable to the larger reported series by Meyers in 1991.⁵ There were no significant complications and the amount of parenteral analgesia required was small.

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