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A CLINICO PATHOLOGICAL STUDY OF NECK SWELLINGS EXCLUDING THYROID IN A TERTIARY HOSPITAL

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ABSTRACT :

Background : The modern era of laparoscopic surgery has evoked remarkable changes in approaches to surgical diseases. The trend toward minimal access surgery (MAS) has prompted general surgeons to scrutinize nearly all operations for possible conversion to laparoscopic techniques. The explosive success of laparoscopic cholecystectomy initiated a revolution with in general surgery. At present nearly every abdominal operations has been performed laparoscopically.The sudden surge of Minimal Access Surgery (MAS) to all fields has prompted to me to take this study

Methods: In our institute we are doing both open and laparoscopic cholecystectomy. This study is done between January 2023 to February 2024. In this period I have selected 25 cases of laparoscopic cholecystectomy to compare with 25 cases of open cholecystectomy. Common indications for surgery were chronic calculous cholecystitis, acalculous cholecystitis, cholelithiasis, biliary colic and acute cholecystitis.. The data was collected in a proforma approved by the guide.After detailed history and clinical examination, fine needle aspiration cytology of involved lymph nodes were performed. Biopsy .

Results All the three patients were treated conservatively and subsided, probably reason due to bile leak from the gall bladder bed in the liver. Out of 25 cases of open cholecystectomy 3 cases had got wound infection, but it was nil in lap cholecystectomy. Transient post op jaundice was developed in one lap case. Persistent pain and dyspepsia after cholecystectomy (post cholecystectomy syndrome) occurred in one open cholecystectomy patient.

Conclusion: In our study the laparoscopic cholecystectomy surpasses the open cholecystectomy by the followings:Better visualization and magnification of surgical anatomy.Decreased post operative morbidity.Shorter duration of analgesic requirements.Shorter duration of antibiotic requirements.Decreased wound infection.Quicker ambulance, better compliance and rapid return to normal activity.Rapid resumption of normal diet.Shorter post operative hospital stay.Best cosmesis.The only disadvantage is the prolonged operative time, which can be minimized in due course of time as the learning curve progresses**.**

Keywords: minimal access surgery, laparoscopic cholecystectomy

INTRODUCTION:

The modern era of laparoscopic surgery has evoked remarkable changes in approaches to surgical diseases. The trend toward minimal access surgery (MAS) has prompted general surgeons to scrutinize nearly all operations for possible conversion to laparoscopic techniques.

The first open cholecystectomy was performed by langenbuch on 1882 in Berlin. The first laparoscopic cholecystectomy was performed by Muhe in 1985. How ever the first laparoscopic cholecystectomy recorded in medical literature was performed in March 1987 by Mouret in Lyon, France. The technique was perfected a year later in March 1988 by Dubois in Paris. With in a year leaders in Europe and United States perfected the technique and are responsible for unprecedented and rapid world wide expansion of the procedure.

The explosive success of laparoscopic cholecystectomy initiated a revolution with in general surgery. At present nearly every abdominal operations has been performed laparoscopically.The sudden surge of Minimal Access Surgery (MAS) to all fields has prompted to me to take this study.

AIM AND OBJECTIVES OF THE STUDY:

Our aim of the study is to compare laparoscopic cholecystectomy with that of open cholecystectomy by the following factorsThe technique of surgery,Duration of surgery,Post operative morbidity,Analgesic requirement,Antibiotic requirement,Post operative hospital stay,Complications,Resumption of normal diet,Return to normal activity,Cosmesis.

MATERIALS AND METHODS:

In our institute we are doing both open and laparoscopic cholecystectomy. This study is done between January 2023 to February 2024. In this period I have selected 25 cases of laparoscopic cholecystectomy to compare with 25 cases of open cholecystectomy. Common indications for surgery were chronic calculous cholecystitis, acalculous cholecystitis, cholelithiasis, biliary colic and acute cholecystitis.The following factors are compared in laparoscopic and open cholecystectomy Technique of surgery,Duration of surgery ,Post operative pain Analgesic requirements ,Duration of antibiotics given ,Intra operative and post-op Complications,Resumption of normal diet,Post operative hospital stay,Return to normal activity,Cosmesis.

Procedure was converted to open method in two cases out of 25 patients due to the following reasons.In one case there were plenty of thick adhesions between gallbladder and surrounding structures particularly duodenum.In another case there was excessive fat in the calot’s triangle and cystic pedicle could not be identified.

Statistical analysis was done using the statistical package for social sciences (SPSS).Different statistical methods were used as appropriate. Mean ± SD was determined for quantitative data and frequency for categorical variables. The independent t- test was performed on all continuous variables. The normal distribution data was checked before

any t-test. The Chi-Square test was used to analyze group difference for categorical variables. A p- value < 0.05 was considered significant

RESULTS:

INTRA OPERATIVE COMPLICATIONS

Complications	Open	Laparoscopic
Bleeding	2	1
Bile duct injury	Nil	Nil
Bowel injury	Nil	Nil
Others	Nil	Nil

POST OPERATIVE COMPLICATION

Complications	Open	Laparoscopic
Bleeding	Nil	Nil
Bile leak through drainage	2	1
Wound Infection	3	Nil
Jaundice	Nil	1
Post cholecystectomy syndrome	1	Nil
Pulmonary complications	Nil	Nil

INTRA OPERATIVE COMPLICATIONS

Complications	Open (n=25)	(%)	Lap (n=25)	(%)
Bleeding	2	8	1	4
Bile Duct Injury	0	0	0	0
Bowel Injury	0	0	0	0
Others	0	0	0	0
Total	2	8%	1	4%

POST OPERATIVE COMPLICATIONS

Complications	Open (n=25)	(%)	Lap (n=25)	(%)
Bleeding	0	0	0	0
Bile leak through drain	2	8	1	4
Wound Infection	3	12	0	0
Jaundice	0	0	1	4
Post cholecystectomy syndrome	1	4	0	0
Pulmonary complications	0	0	0	0
Total	6	24%	2	8%

CHI-SQUARE TEST

Complications [n=50]	Open cholecystectomy	Laparoscopic cholecystectomy	Total
Intra Operative	2	1	3
Post Operative	6	2	8
Total	8 [16%]	3 [6%]	11
P=0.023 significance between the variables		chi-dist – 0.7822	

CLINICAL DETAILS OF PATIENTS SUBJECTED TO LAPAROSCOPIC OR CONVENTIONAL CHOLECYSTECTOMY

Variables	Laparoscopic cholecystectomy (n=25)	Open cholecystectomy (n=25)
Age(years)	42.76 +/- 12.09	39.12 +/- 13.79
Sex ratio(M/F) nos.	7/18	11/14
Duration of Surgery (min)	120 +/- 10.80	90 +/- 13.84
Analgesic requirement (Days)	3.12 +/- 0.33	6.08 +/- 0.40
Antibiotic requirement (Days)	4.28 +/- 0.46	7.40 +/- 1.58
Complications (%) [N=50]	6%	16%
Resumption of Normal Diet (Days)	3.16 +/- 0.85	5.24 +/- 1.23
Post operative Hospital stay (Days)	5.04 +/- 1.34	9.76 +/- 1.23

Values are mean +/- S.D P<0.005

DISCUSSION:

In our study I have selected cases for surgery based on preoperative history, clinical examination, ultrasonography and liver function test. We exclude the common bile duct stones by clinical signs, LFT and ultrasonography.
A study of 25 open cholecystectomy patients of which 18 female and 7 male patients were compared with that of 25 cases of laparoscopic cholecystectomy of which 14 female and 11 male patients.

The relative advantages and disadvantages of laparoscopic and open surgery are measured primarily in terms of quality of life for the patients involved. The study revealed the following findings.By technique wise laparoscopic surgery provides better visualization with magnification of surgical anatomy in contrast to the open surgery.Among the 25 laparoscopic cholecystectomies, two cases were converted to open cholecystectomy due to adhesions and inability to identify anatomy. Conversion rate was 8%.The mean operative time for laparoscopic cholecystectomy is 120 minutes which is 30 minutes longer than conventional open method (90 min). Regarding post operative morbidity in terms of pain, recovery from surgery and ambulance from bed the laparoscopic patients faired better from open surgery.Traditional major open abdominal operations have potent effects on the immune system. Surgical trauma induces an inflammatory state characterized by the release of proinflammatory cytokines IL-1B, IL-6, IL-8, TNFalpha and acute phase proteins such as C-reactive protein are typically transiently increased. Surgical manipulation also depresses cell mediated immunity by alteration in recruitment, activation and function of circulating lymphocytes, monocytes and other immune cells.

After open cholecystectomy, higher post operative plasma levels of CRP, TNFalpha, IL-1B, IL-6 and higher leukocyte counts relative to laparoscopic cholecystectomy.[17] This was the probable reasons for early recovery, less pain and early ambulance in laparoscopic cholecystectomy patients.Regarding analgesic requirement the open surgery patients required analgesics even on the sixth post operative day. While the laparoscopic patients didn't experienced pain in the immediate post operative period because of less acute phase reactions and port site infiltration of bupivacine and no patients required analgesics on the fourth post operative day.The mean duration of antibiotics given for open cholecystectomy patients were around 7 days while for laparoscopic patients it was only 4 days.Regarding intra operative complications bleeding has occurred in two open cholecystectomy and one open laparoscopic cholecystectomy patients. Bile duct injury was nil in both open and lap cholecystectomy. Regarding post operative complication bile leak through drain has occurred in two open and one lap patients.

All the three patients were treated conservatively and subsided, probably reason due to bile leak from the gall bladder bed in the liver. Out of 25 cases of open cholecystectomy 3 cases had got wound infection, but it was nil in lap cholecystectomy. Transient post op jaundice was developed in one lap case. Persistent pain and dyspepsia after cholecystectomy (post cholecystectomy syndrome) occurred in one open cholecystectomy patient. Long term pain less common after laparoscopic than open cholecystectomy.[18] In our study both groups patients there were no pulmonary complications. But other studies revealed impairment in pulmonary function after lap cholecystectomy was less marked than after open cholecystectomy.[19]

The overall complication rate for open method was 16% and for lap only 6%.The patients operated by conventional open method resumed to normal diet only on 5th post operative day, while those done by lap method resumed to

normal diet even on the 3rd post operative day.Regarding post operative study in the hospital, for open method patients it was totally 10 days after surgery, while for lap patients it was only 5 days. The early ambulance and even return to normal activity was quick after lap method, so cost effective.[20]Cosmesis is the greatest advantage after lap cholecystectomy compared to open method.

CONCLUSION:

In our study the laparoscopic cholecystectomy surpasses the open cholecystectomy by the followings:Better visualization and magnification of surgical anatomy.Decreased post operative morbidity.Shorter duration of analgesic requirements.Shorter duration of antibiotic requirements.Decreased wound infection.Quicker ambulance, better compliance and rapid return to normal activity.Rapid resumption of normal diet.Shorter post operative hospital stay.Best cosmesis.The only disadvantage is the prolonged operative time, which can be minimized in due course of time as the learning curve progresses.
We have also found that the conversion to open cholecystectomy should be done in proper time with out any hesitation in case of complications that could not be managed by laparoscopic surgery and conversion in such case reflects sound judgment and should not be considered as a complication.

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