Observation on Symptoms Persisting after Laparoscopic Cholecystectomy

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ABSTRACT

Introduction: Laparoscopic cholecystectomy which is most widely practiced for symptomatic gallstones has gained tremendous popularity over the last three decades. A substantial amount of patients presenting with persisting symptoms after laparoscopic cholecystectomy warranted a study on these patients.

Material and Methods: One hundreds cases in which laparoscopic cholecystectomy was done were followed up for a period of two years with emphasis on those patients who presented with persistent symptoms after the operation and were examined clinically and with relevant investigations.

Results: Female to male ratio in the study was 4.3: 1. Sixteen patients presented with persistent symptoms after laparoscopic cholecystectomy. More than 50% of the cases were diagnosed with extrabiliary disorders while 31.25% of the patients were diagnosed with biliary tract disorders.

Conclusion: Patients should be counselled about the disease and impact of laparoscopic cholecystectomy on the treatment of cholelithiasis. A careful planning and follow up of the patients following laparoscopic cholecystectomy should be done.

Keywords: Abdominal Pain, Bile Duct Injury, Cholelithiasis, Laparoscopic, Cholecystectomy, Post Cholecystectomy Syndrome

INTRODUCTION

Gall bladder diseases is a relatively common problem in our country with different incidences in different regions. Among Indians, the highest incidence of gall bladder carcinoma and stones is found in people from northern part as compared to other parts of the Indian subcontinent.[1] After being introduced as the standard treatment in1987, laparoscopic cholecystectomy became popular and enjoys the supremacy of being the treatment of choice of cholelithiasis.[2] Laparoscopic cholecystectomy has several advantage over the open procedures which has made it the treatment of choice whether it is reduced postoperative hospitalization, much less pain and an acceptable cosmesis. These factors have also been well documented by other studies.[3,4] Large number of cholecystectomies are being performed every year globally. Despite this, symptoms may still persist that were present before the operation or symptoms may present de novo after the operation. Due to this, some researchers have found this approach to be ineffective in almost half of the laparoscopic cholecystectomies performed. [5,6] It is very important to have a proper assessment and evaluation of patients with upper abdominal symptoms especially patients with cholelithiasis to rule out whether the symptoms are just incidental findings or are due to the stones in the gall bladder.[7] There is a lot of debate over the persistence of symptoms after laparoscopic cholecystectomy and its usefulness in all the cases where the surgery have been performed. So we conducted this study to follow up cases of laparoscopic cholecystectomy to assess their condition after the surgery, improvement in their symptoms and to look for any complications. This procedure is now very commonly performed in this kosi region of bihar, a rural area of eastern part of our country. This type of study was long overdue in this part and it will only prove to be beneficial for the patients in future.

MATERIAL AND METHODS

The present study has been based upon 100 consecutive patients who attended the Surgical Outpatient Department for follow up after laparoscopic cholecystectomy. Prior approval from institutional ethical committee was taken for the present work. Interrogation was carried out with each patient by a series of questionnaires about wellness, relief of symptoms, satisfaction with operation and appearance of any new symptoms. A group of patients expressed dissatisfaction with their operation and complained of some or the other problem. Further inquiry was made regarding these complains with reference to following points in these patients like pain, nausea and vomiting, dyspepsia, fever, jaundice, hemetemesis, weight loss, appetite and bowel habits. Investigations were carried out for proper assessment and further management of these patients. These were-

Routine blood and other investigation
Special blood investigations
Invasive procedures
Radiological investigations

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RESULTS

Out of 100 patients included in this study, 84 patients presented with complete relief of original symptoms and feeling of general well being, and fully satisfied with operation while 16 patients were those who presented with original preoperative symptoms or modified original symptoms or new symptoms in whom our study was conducted. These patients who presented with post laparoscopic cholecystectomy symptoms, were investigated in details with a view to identify the factors responsible for their suffering and to explore the possibility of providing relief if possible. Out of these 16 patients, there was female preponderance with number of female being 13 (81.25%) and number of male being 3 (18.75%). The highest incidence of post laparoscopic cholecystectomy symptoms was observed in the age group 31 to 40 years (7/16, 43.75%), while age group 21-30 years, 41-50 years and 51-40 years presented with 3 cases each(18.75%). No case was found above age of 60 years. The commonest post laparoscopic cholecystectomy symptom in these patients was pain abdomen (62.50%) followed by vague indigestion (56.25%). This was followed by nausea and vomiting in 50% of the patients. Other symptoms were loss of weight (31.25%), yellow discolouration of eyes (18.75%). Fever (on and off) and irregular bowel habits were present in least number of patients (12.50% each). The predominant sign present in these patients was tenderness present in 7/16 (43.75%) of patients which was most commonly seen over the right hypochondriac and epigastric region. Jaundice was present in 18.75% of patients. Various investigations were done in these patients. Giardia lamblia, Entamoeba histolytica and Ascaris lumbricoides was found in stool sample of one patient each. Serum bilirubin was raised in 4 patients (25%) while alkaline phosphatase was raised in 3 patients (18.75%). Cases of common bile duct(CBD) pathology like stones, stricture, dilatation and remnant long cystic duct dilatation was found in patients on endoscopic retrograde cholangio-pancreaticography(ERCP). Also ERCP showed pancreatic duct pathology in patients. Ultrasonography and CT scan of abdomen was done to confirm the above findings. This study encountered 9 cases (56.25%) of extrabiliary disorders overall. Diagnosis of residual stones in the CBD was made in 2/16 (12.5%) of patients while bile duct stricture and long dilated cystic duct remnant was diagnosed in one patient. Parasitic infection was diagnosed in 3 patients while chronic pancreatitis was seen in one patient. Various clinical diagnosis was made according to the investigations done in post laparoscopic cholecystectomy patients which are enumerated in the following table (Table 1).

DISCUSSION

In our study, we had more number of females (81.25%) with persisting symptoms after cholecystectomy as compared to males (18.75%). It is quite obvious that cholelithiasis is a disease with female preponderance with ratio of woman to man equalling to almost 4 to 5 :1. This is also in accordance to study done by various researchers where the women were out numbering men in cases of cholelithiasis and persistence of symptoms after the operation.[2,8,9] 84% of the patients in this study had successful laparoscopic cholecystectomy with complete relief of symptoms and no complains. This is very similar to other studies where the authors have reported successful relief of symptoms after laparoscopic cholecystectomy in 70% to as much as 90% of cases.[10,11] Patients who presented with preoperative symptoms or

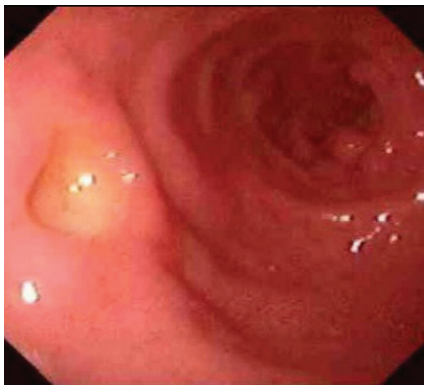

Figure-1: Upper GI endoscopy showing ulcer over anterior wall of duodenum

Main categories	No. of Cases and % (overall)	Clinical diagnosis	No. of Cases	Percentage
		Chronic duodenal ulcer	3	18.75
		Koch's abdomen	1	6.25
A. Extrabiliary Disorders	(9) 56.25	Helminthic infestations	1	6.25
		Amoebiais	1	6.25
		Giardiasis	1	6.25
		Chronic pancreatitis	1	6.25
		Hiatus hernia with reflux oesopagitis	1	6.25
B. Biliary tract disorders	(5) 31.25	Stenosis of sphincter of Oddi.	1	6.25
		Long and dilated cystic duct remant	1	6.25
		Residual stone in CBD	2	12.5
		Bile duct stricture	1	6.25
C. Functional disorders	(2) 12.50	Psychoneurosis	2	12.5
Total			16	

Table-1: Showing clinical diagnosis according to the results of investigations in 16 post laparoscopic cholecystectomy patients having persistent symptoms

modified original symptoms or other new symptoms after the surgery were 16% in our study. Studies have been done where incidence of symptoms after cholecystectomy have ranged from 15% of the patients to one third of the patients.[12,13] One common reason for incomplete relief after laparoscopic cholecystectomy is that the preoperative diagnosis of chronic cholecystitis was incorrect. This view has gathered support by many different studies conducted by eminent authors worldwide, but is also supported by findings of the present series, based on thorough investigation of 16 operated patients with persistent symptoms. Some authors are of view that abdominal symptoms, subsequent to cholecystectomy for chronic cholecystitis and cholelithiasis, are usually related to an extrabiliary cause such as hiatal hernia, peptic ulcer, or pancreatitis.[14] Other authors have gone to the extent of saying that the symptoms are most commonly due to disease of organs other than the biliary tract and only if these can be eliminated, one of the lesions of the biliary tract should be considered.[13] Abdominal pain, nausea and vomiting, indigestion were the predominant symptoms in the present study which were also seen as the common symptoms in a study done by Mehrvarz et al.[15] More than half of the patients in this study (56.25%) were diagnosed with extrabiliary disorders like peptic ulcer, pancreatitis, hiatus hernia, parasitic infections etc which is quite similar to some of the earlier studies.[16] Also it needs to be mentioned here that the ignorance or overlooking of these extrabiliary disorders are the major reasons of postcholecystectomy syndrome.[17] Five cases in the present study (31.25%) were diagnosed as biliary tract disorders post cholecystectomy with two cases (12.5%) as residual stone in common bile duct and one case each of bile duct stricture, stenosis of sphincter of oddi and long and dilated cystic duct remnant. Much of the causes mentioned as biliary tract disorders above go unrecognised in early post operative period as the common bile duct is patent until stricture or stenosis develops which causes biliary colic resulting in abdominal pain, jaundice or even complicates as sepsis which leads to their diagnosis in late post operative period. Retained common bile duct calculi, bile duct stricture, stenosis of sphincter of oddi and cystic duct remnant are the main biliary aetiologies of persistant post cholecystectomy symptoms along with other aetiologies like chronic biloma or abscess, bile salt-induced diarrhoea or gastritis and dropped calculi as mentioned by other researchers.[18] Two of the patients in the present study were diagnosed as psychoneurosis as they were of the opinion that might be improper operation has been done and something more needs to be done to alleviate their symptoms but in these patients no organic cause was detected. After several rounds of counselling and various investigations which were within normal limits, they were referred to psychiatrist for further treatment on suspicion of malingering. Some patients may have silent gall stones and some may have irritable bowel disease and there may be lot of patients in which the pre operative problem might have been bloating, reflux or regurgitation or they might have been using psychotropic drugs for these symptoms. So the treating doctor must be aware of these things as in these patients laparoscopic cholecystectomy may not be helpful.

CONCLUSION

Laparoscopic cholecystectomy is a common operation and has emerged as the most standard operation for symptomatic gall stones throughout the world. A gall stone patient who presents with dyspepsia or common upper gastrointestinal symptoms has to be properly and promptly assessed as their presence may not be due to gall stones and they may present even after cholecystectomy. A proper counselling has to be done for patients with cholelithiasis by the surgeon and risk of surgery, complications and persistance of symptoms should be thoroughly explained.

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