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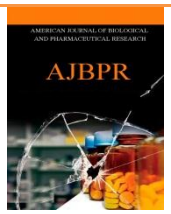

COMPARISON BETWEEN BILIARY STRICTURE AFTER LAPAROSCOPIC AND OPEN CHOLECYSTECTOMY

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ABSTRACT

This is a retrospective study comparing benign biliary stricture after laparoscopic and open cholecystectomy. Patients with post cholecystectomy biliary stricture admitted in the Department of General Surgery in S.S.K.M. Hospital & i.P.G.M.E.R a Tertiary Referral Hospital between October 2009 to November 2011 were included in this study. The risk factors, etiology, associated factors, type of stricture, outcome and preventive approach were the parameters 'studied. The above parameters were then compared with the data worldwide. Thirty cases of benign biliary stricture following cholecystectomy, of which 19 () had sericture after laparoscopic cholecystectomy and 11 () after open. 8() had stricture after cholecystectomy done for acute cholelithiasis of which 5 had laparoscopic and 3 had open cholecystectomy. Biliary stricture was associated with Biloma in 10 cases and fistula in 12 cases. There were 10 cases of Bismuth type 1 stricture followed by 10 cases of type 2, 7 case of type 3 and 3 case of type 4 biliary stricture. Biliary strictures following laparoscopic cholecystectomy are of a much higher grade than occurring after open cholecystectomy. Biliary strictures after laparoscopy are also associated with more incidence of associated injury like biloma and fistula. Prevention of biliary stricture is by simply sticking to the common principles of cholecystectomy.

INTRODUCTION

Cholecystectomy is probably the most commonly performed elective abdominal operation and has a high degree of safety. Among the various causes of benign biliary stricture iatrogenic injuries after cholecystectomy are the most commonly reported. With the introducing of laparoscopic cholecvstectornv the concept is more important because of the learning curve in mastering the procedure [1,2].

MATERIALS AND METHODS

A retrospective study comparing benign biliary stricture after laparoscopic and open cholecystectomy in the Department of General Surgery in S.S.K.M Hospital & I.P.G.M.E.R between October 2009 to November 2011. The patients were thoroughly evaluated by using various investigations like Liver function tests, routine blood investigations, USG, CT scan, ERCP, MRCP, HIDA scan, PTC.

All patients were optimized before definite surgery Roux-en –Y, Hepaticojejunostomy for sepsis, biloma, malnutrition. Surgical biliary-enteric bypass in the form of Roux-en-Y Hepaticojejunostomy was done in all cases of biliary stricture irrespective of the type of stricture and was done after a minimum duration of about 6-8 wks after the cholecystectomy. The data was then grouped according to etiology for which cholecystectomy was done,

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associated factors, type of stricture and the results were obtained [3].

RESULTS

From October 2009 to November 2011 thirty cases of benign biliary stricture following cholecystectomy were included in this study. 26 of the 30 case were referral. 19 patients have biliary stricture following laparoscopic cholecystectomy and 11 had after open cholecystectomy. 8 had stricture after cholecystectomy done for acute cholelithiasis of which 5 had laparoscopic and 3 had open cholecystectomy done. Rest 22hadcholecystectomy done for chronic. Cholelithiasis of which 14 laparoscopic and 8 open.

Stricture was associated with biloma in 10 case, 7 laparoscopic group and 3 under open group. Fistula was associated in 12 cases 8 laparoscopic group and 4 open group. 1 patient had pseudo aneurysm involving Right hepatic artery after laparoscopic cholecystectomy.

Mean duration of presentation as biliary stricture was 4.5 months (3-11 months). Bismuth type 1 stricture was found in 10 cases 6 under laparoscopic group and 4 in open group, Bismuth type 2 in 10 case 5 each in laparoscopic and open group, Bismuth type 3 in 7 cases 6 in laparoscopic and 1 in open group . Whereas Bismuth type 4 was seen in 3 case 2 in laparoscopic group and 1 in open group.

Patients who had stricture after acute cholecystectomy, we had Bismuth type 1, type 2 and type 3 stricture which were seen in 2 cases 1 each in laparoscopic and open group. There 'were 2 cases of Bismuth type 4 stricture both in the laparoscopic group.

Table 1. Stricture association

Type of cholecystectomy	Biloma	Fistula	pseudo aneurysm
Laparoscopic	7	8	1
Open	3	4	-

Fig 1. Total number of cases of biliary stricture

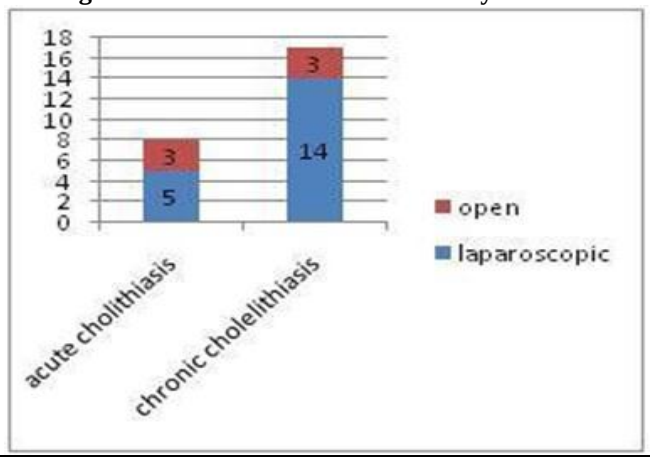


Fig 2. Bismuth type stricture pattern

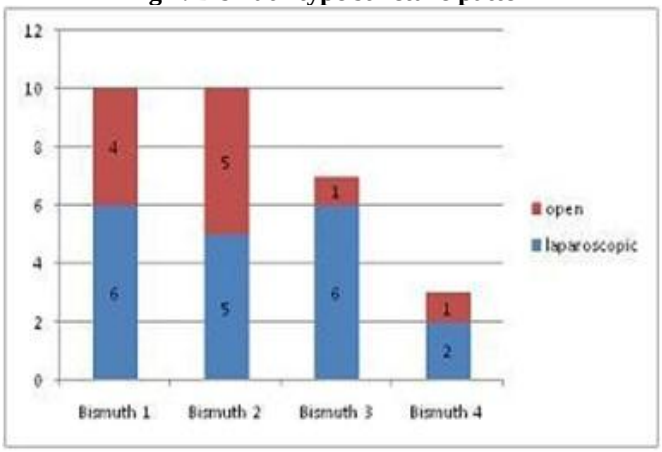
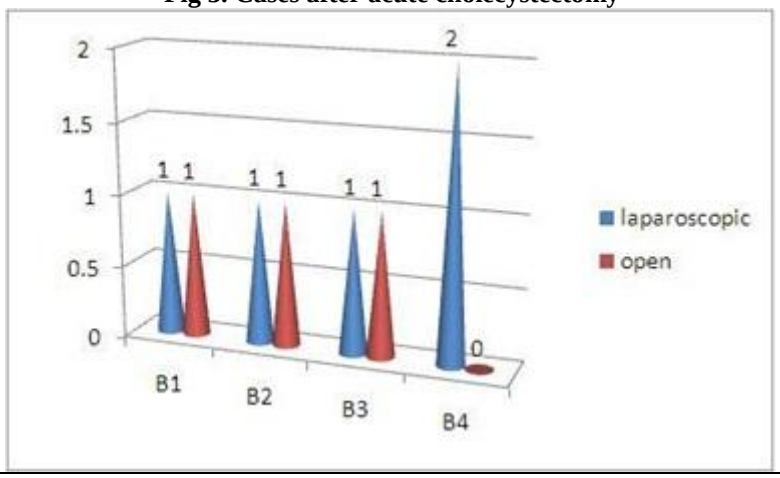


Fig 3. Cases after acute cholecystectomy



DISCUSSION

Biliary stricture following cholecystectomy is one of the most dreadful complications a surgeon could have. Through investigations are required to completely define the type, extent of stricture and the coexisting comorbidities.

CONCLUSION

A stricture of the biliary tract can be one of the most difficult challenges that a surgeon could face after cholecystectomy. Stricture occurring after laparoscopic cholecystectomy are much more severe than after open cholecystectomy, as evident from the fact that stricture after laparoscopic cholecystectomy were more of Bismuth type3 and 4 as compared to in open group, it was also associated with a higher incidence of other problems like biloma, fistula, pseudoaneurysm. The results from our study are similar to results in various other studies done in this field time to time.

The only means to reduce this complications is to stick to the basic principles of cholecystectomy be it either open or laparoscopic one.

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Nil

CONFLICT OF INTEREST

The authors do not have any disclosable interest.

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