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CLINICAL AUDIT OF PATIENTS WITH CHOLELITHIASIS

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ABSTRACT

Background: Gallstone is a major health problem worldwide. Cholelithiasis prevalence in Pakistan is about 15 to 20 %. Common risk factors for gallstones formation are old age, female, obesity and diabetes mellitus etc. **Aim of study:** To evaluate the clinical profile of patients with Cholelithiasis. **Methodology:** It is a cross-sectional study done at Jinnah Hospital Lahore from August 2017 to January 2018. We enrolled 75 patients in the study of age more than 30 years of age diagnosed as Cholelithiasis to study their clinical profile. All diagnosed patients of gallstones through ultrasound were admitted in ward. Clinical presentation like signs, symptoms and preoperative ultrasound findings of all patients were noted on a performa. **Results:** Total 75 were admitted studied with the history of Cholelithiasis. The mean age of patient was 45.5±6.48 years and duration of disease was 6.2±2.53. We found that 75% patients in our study were female. Almost 65% patients were from rural background. The clinical features observed were fever 32%, nausea 45%, vomiting 38% jaundice 18%, abdominal pain 92% and dyspepsia 26%. The ultrasound findings among patients were single stone 15%, multiple stone 32%, bile duct stones 15%, thickening of gallbladder 40%, and bile duct dilation 14%. 70% of patients managed by laparoscopic cholecystectomy and 30% by open cholecystectomy. Biochemistry of gallstone was, cholesterol stone 28%, mixed 54% and pigmented 18%. **Conclusion:** We concluded that incidence of gallstones is high forty year of age with female preponderance. The most common presenting complain was pain and tenderness at right hypochondrium. Ultrasound proved to be best screening test for Cholelithiasis.

KEYWORDS: Gallstones, Cholelithiasis and cholecystectomy.

INTRODUCTION

Gall stone disease can be either asymptomatic symptomatic. It is an aggregation of solid material e.g. bile acids, cholesterol and pigmented materials in the biliary tract parts.[1] The prevalence of gallbladder stone varies widely in different parts of the world.[2] It is a major health problem within the world. Its Prevalence Pakistan is around 15 to 20 %.[3-4] The prevalence in western countries are 19%, Ireland 6% & Sweden 40%.[5-6] In Australia the prevalence ranges similar to Pakistan i.e. 15% to 25% while in Africa it is less than 1%.[2] Well-known risk factors for gallstones proven by different studies are female, forty plus age, fatty (obesity) and inactivity. Some other risk factors are high levels of serum lipids and high glucose levels are associated with gallstone disease.[7] Patients usually complain of right upper quadrant or Epigastric pain, which may radiate to the back or shoulder. The pain may be colicky in nature, but in most of the cases it is dull and constant. Other symptoms include dyspepsia, flatulence, food intolerance, particularly to fats, and some alteration in bowel frequency. The diagnosis of Cholelithiasis can be made by complete relevant history & specific physical examination & along ultrasound findings. Cholelithiasis is considered as a surgical disease since only a cholecystectomy is the cure, but through early identification of risk factors this could help in designing therapeutic as well as preventive strategies.[8] Due to increase in prevalence of Cholelithiasis & its different spectrum in Pakistan there is a need to conduct a study that can provide information related to the prevalence of the disorder, different spectrum of presentation, management and outcome of individuals with Cholelithiasis.

PATIENTS AND METHODS

It is a cross-sectional study done at Jinnah Hospital Lahore from August 2017 to January 2018. We enrolled 75 patients in the study of age more than 30 years of age diagnosed as Cholelithiasis to study their clinical profile.

Inclusion criteria: Patients of age above 30 years with either gender with gall stones, had fitness for general anesthesia and consented for the study.

Exclusion criteria: We excluded those patients who were unfit for general anesthesia, pregnant ladies, having

suspicion of carcinoma gall bladder, acute pancreatitis, obstructive jaundice and acute cholecystitis.

All diagnosed patients of gallstones through ultrasound were admitted in ward. Clinical presentation like signs, symptoms and preoperative ultrasound findings of all patients were noted on a performa. Cholecystectomy risk and benefits were explained to the patient, written consent was taken and the pre-operative management plans were also initialized. During surgery the anatomical variations were observed. Some of the individuals underwent for open cholecystectomy and some laparoscopic cholecystectomy depends on clinical circumstances. The post-operative care was provided according to the protocols. Individuals underwent laparoscopic cholecystectomy were discharged on 2nd day of surgery and open cholecystectomy were discharged on fourth post-op day, unless any complications. Patients were advised regarding diet, rest and to visit the surgical OPD for regular follow up. The data was analyzed through SPSS 22.0 version.

RESULTS

Total 75 were admitted studied with the history of Cholelithiasis. The mean age of patient was 45.5±6.48 years and duration of disease was 6.2±2.53. We found that 75% patients in our study were female. Almost 65% patients were from rural background. The clinical features observed were fever 32%, nausea 45%, vomiting 38% jaundice 18%, abdominal pain 92% and dyspepsia 26%. The ultrasound findings among patients were single stone 15%, multiple stone 32%, bile duct stones 15%, thickening of gallbladder 40%, and bile duct dilation 14%. 70% of patients managed by laparoscopic cholecystectomy and 30% by open cholecystectomy. Biochemistry of gallstone was, cholesterol stone 28%, mixed 54% and pigmented 18%.

Table 1: age distribution of patients.

Age (yrs.)	Frequency	Percentage
30-39	12	24
40-49	20	40
50+	18	36

Table 2: gender distribution.

Gender	Frequency	Percentage
Male	19	25
Female	56	75

Table 3: Clinical presentation.

Clinical presentation	Frequency	Percentage
Fever	24	32
Nausea	34	45
Vomiting	29	38.5
Jaundice	14	18.5
Abdominal Pain	69	92
Dyspepsia	20	26

Table 4: Ultrasound findings.

Ultrasound findings:	Frequency	Percentage
Single stone	11	15
Multiple stone	24	32
Bile duct stones	11	15
Thickening of gallbladder	30	40
Dilated bile duct	10	14

Table 5: type of surgical intervention.

Intervention	Frequency	Percentage
Laparoscopic cholecystectomy	53	70
Open cholecystectomy	22	30

Table 6: Type of stone.

Type of stone	Frequency	Percentage
Cholesterol stone	21	28
Mixed	41	54
Pigmented	13	18

DISCUSSION

Worldwide prevalence of Cholelithiasis is very high in developed countries, but developing countries such as Pakistan are currently facing the rapidly increasing burden of gallstone disease as well.[9-10] Gallstones were first time described by Lange bunch in late 19th century.[1] Gallstones is a significant cause of death that would result in a costly pathological conditions.[2,11] In current study age ranged from 30 to 60 years, mean age was 45.5±6.48, this is similar with a study done by Channa et al.[13] reported mean age ± SD was 45.95 ± 10.253. Khan SA et al.[14] reported it between ages of 19 and 74 years with a mean age of 42.80 ± 12.26 years. In present study 25 % was male and 75% was female making male to female ratio 1:3 which is consistent with the former studies.[15-16] Aslam et al.[17] has reported almost similar ratio of males (26.4%). In current study 22 patients underwent open cholecystectomy and 53 cases underwent laparoscopic cholecystectomy and the conversion rate from lap to open cholecystectomy was 4% and is related to the past studies.[14-15] In current study, ultrasound findings among patients were single stone 15%, multiple stone 32%, bile duct stones 15%, thickening of gallbladder 40%, and bile duct dilation 14%, and these finding are almost similar to study by Muller MF, et al.[18] In current series majority 54% had mixed stones, 28% had cholesterol stone and 18% had pigment stone and is similar to the study by Xiao T, et.[19] Aslam et al.[17] reported that 84.5% patient had multiple stones while 15.4% had single stones. Jalali SA et al.[20] reporting the incidence of multiple stones was higher than the single stones. Unhealthy lifestyle and decreased physical activity were also major risk factors for gallstones. Many studies have associated gallstones with a positive history of diabetes, but we did not find any significance, confirming the findings of Denmark study.[9]

CONCLUSION

We concluded that incidence of gallstones is high forty year of age with female preponderance. The most common presenting complain was pain and tenderness at right hypochondrium. Ultrasound proved to be best screening test for Cholelithiasis. We found that the commonest type of stones were mixed stones. To reduced rate of complications and hospital stay laparoscopic cholecystectomy is beneficial.

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