ORIGINAL RESEARCH PAPER VOLUME-6 | ISSUE-8 | AUGUST - 2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

AN OBSERVATION ON CLINICAL PRESENTATION AND MANAGEMENT OF OBSTRUCTIVE JAUNDICE

Surgery

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ABSTRACT

Introduction Jaundice is a frequent manifestation of biliary tract disorders and evaluation of obstructive jaundice is a common problem faced by general surgeons. This study was undertaken to highlight the etiological spectrum, treatment outcome of obstructive jaundice in our setting.

Methods Patients of obstructive jaundice admitted from September 2009 to September 2011 were taken up for the study. All patients with extra hepatic jaundice were including in the study. Data were collected and analyzed.

Results A total of 40 patients were studied. Females outnumbered males by a ratio of 2:1. Calculus (85%) was the most common cause followed by malignant cause (10%). Maximum incidence was observed between 30-50 years age.

Conclusions Jaundice was the presenting symptom in all case followed by pain abdomen (80%). Calculus biliary obstruction was the commonest cause of obstructive jaundice.

KEYWORDS:

Obstructive Jaundice, Patients, Calculus.

Introduction

Jaundice is a generic term for the yellow pigmentation of skin, mucus membranes, or sclera that cause by heterogeneous group of disorders1.The predilection for scleral for icterus is due to the abundance of sclera elastin, which has a high affinity for bilirubin. Jaundice is a frequent manifestation of biliary tract disorders and the evaluation and management of obstructive jaundice is a common problem faced by the general surgeon. Obstructive jaundice is strictly defined as a condition occurring due to a block in the pathway between the site of conjugation of bile in liver cells and the entry of bile into the duodenum through the ampulla. The block may be intrahepatic or extra hepatic in the bile duct2. Obstructive jaundice is not a definitive diagnosis and early investigation to elucidate the precise etiology is of great importance because pathological changes (e.g. secondary biliary cirrhosis) can occur if obstruction is unrelieved. The common etiologies of obstructive jaundice have been reported to vary from one center to another and from one individual to another. An accurate diagnosis can usually be made with standard diagnostic techniques such as history, physical examination, and biochemical tests, and when appropriate cholangiography and liver biopsy and observation of the patient's course3. Early detection of obstructive jaundice etiology can help clinicians to treat accurately and thus will improve quality of life of patient and particularly the survival rates among the patients with malignant pathology4. Hence, present study was undertaken to diagnose the cause, site of obstruction, and other clinical features of obstructive jaundice among patients reporting at Rajendra Institute of Medical Science Ranchi.

Aim and objective

- To observe different types of clinical presentation among patients with obstructive jaundice.
- To observe various causes and sites of obstruction of the biliary tree.
- To observe different types modality of treatment available and their outcome.

Material and method

Patients admitted to the Department of General Surgery at Rajendra Institute of Medical Sciences, Ranchi during the period from September 2009 to September 2011were taken up for the study. All patients with extra hepatic jaundice were including in the study. All Cases were subjected to detailed history, clinical examination, investigation and treatment according to the protocol. The patients who refused to participate in the study were excluded.

Result

The study has conducted on 40 cases of extra hepatic obstructive jaundice admitted in the department of surgery, RIMS, Ranchi between the periods from September 2009 to September 2011.

Table 1: Age incidence of obstructive jaundice

Age in year	No. of Patients	%
<20	1	2.5
20-30	4	10
30-40	14	35
40-50	9	22.5
50-60	7	17.5
>70	5	12.5

Table 2: Sex ratio of obstructive jaundice

Sex	No. of cases	%
Male	13	32.5
Female	27	67.5

Table 3: Etiology of obstructive jaundice

S.N.	Cause of obstruction	No. of cases	%
1	stone	34	85
2	Post-operative stricture	2	5
3	Malignant obstruction	4	10

Table 4: Presenting symptoms in patients of obstructive jaundice

Symptoms	No. of cases	%
Jaundice	40	100
Pain abdomen	32	80
Weight loss	24	60
pruritus	20	50
Clay color stool	14	35

Table 5: Different surgical procedure for obstructive jaundice

S. N.	Surgical procedures	No. of cases	%
1	Cholecystectomy& Supraduodenal Choledochotomy with T-tube drainage	32	80
2	Choledochoduodenostomy	2	5
3	Hepatichojejunostomy	3	7.5
4	Cholecystojejunostomy	1	2.5
5	Choledochojejunostomy	1	2.5
6	Pancreaticoduodenectomy	1	2.5

Incidence of age varied from 18 years to 80 years. Maximum number of cases of obstructive jaundice falls in the age group of 30-40 years. The numbers of females encountered in this series were much more than male, the ratio of male to female being1:2. The most common cause of obstructive jaundice was stone of biliary tract. Out of 40 case of obstructive jaundice only 4 were malignant cause. The most common symptoms was jaundice in all case, fluctuating jaundice in 34 cases and progressive jaundice in rest of 6 cases. Pain present in 32 cases and weight loss in 24 cases. The most common procedure performed was Supraduodenal Choledocholithotomy(80%).

Figure 1

Icterus in sclera

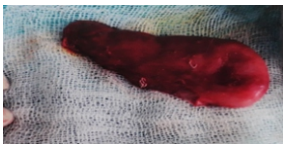
Figure2

T-tube in situ

Figure 3

Gall bladder and CBD stone

Figure 4



Gall bladder with multiple stone

Discussion

Obstructive jaundice is a frequent condition of biliary tract disorders and the evaluation and management of the jaundice patient is a common problem facing the General Surgeon. It is very important to differentiate the medical causes of jaundice from the obstructive or surgical causes. A clear understanding of the etiology, presentation and management is a prerequisite for the management of obstructive jaundice. Hence, the diagnosing a case of surgical jaundice, a thorough history, a complete physical examination and biochemical tests are necessary. Once diagnosed, the surgeon should have good knowledge about the anatomy of the biliary tree, physiology of bile metabolism and pathophysiological changes occurring in the liver secondary to obstruction, various causes of obstruction, different imaging facilities and different modalities of treatment. In this study, analysis of the various causes of surgical jaundice and its presentation were done. Investigations were carried out and different types of operative procedures were conducted. Total numbers of cases were 40. The present study found that most of the patients affected with obstructive jaundice were 30-40 years age group and the incidence of females were greater than males in our study population, 90% of lesions were benign and 10% were malignant lesions. The stone was the most common cause followed by malignant causes (10%) and CBD Stricture inflammatory (5 %) among patients with obstructive jaundice. Most of the literature suggested that the most common cause of obstructive jaundice were malignant cause compare to benign causes5, 6, but in contrast to Bekele et al 7 in Ethiopia who reported benign obstructive jaundice (choledocholithiasis) as the most common cause of obstructive jaundice. In our study, choledocholithiasis was the commonest cause followed by malignant cause obstructive jaundice. Anand S et al3 evaluated the clinical profile and the different modalities of treatment of obstructive jaundice and revealed that occurrence of surgical jaundice was maximum in the 31- 70 year age group, all patients presented with icterus, most common cause of obstruction was choledocholithiasis followed by malignancy8. In this study, both the benign and malignant obstructive jaundice were found to be more common in females than in males, which is in conformity with the results of other researchers 5, 9. Female preponderance in both the benign and malignant obstructive jaundice has been ascribed to high prevalence of gall stones in them which is reported to be a risk factor for many benign and malignant conditions causing biliary obstruction10. In the current study it was observed that jaundice (100%), pain abdomen (80.00%) weight loss (60.00%) were three most common modes of presentation of obstructive jaundice cases. This result correlates with study conducted by other study 11, 12. In our study, open Choledocholithotomy for Choledocholithiasis was used in the majority of patients with T- tube drainage.

Conclusion

Obstructive jaundice is a common surgical problem in our setting and poses diagnostic and therapeutic challenges. It is more common among females with benign causes being more prevalent. Jaundice was the presenting symptom in all case followed by pain abdomen (80%). Calculus biliary obstruction was the commonest cause of obstructive jaundice. The majority of patients with Choledocholithiasis were treated with Choledocholithotomy with T-tube drainage.

Funding: none
Conflict of interest: none

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