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Clinico-Pathological Study of Obstructive Jaundice in Srikakulam District

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Abstract
The term obstructive jaundice usually signifies an anatomical obstacle to the extrahepatic biliary tract. The present study is to study the various aetiological factors and path physiological effects of disease in obstructive jaundice and to prepare them for surgical intervention. To plan for surgical intervention, either curative or palliative. To follow up the patients to understand the progression of the disease, after surgical intervention and to analyse the outcome.

Introduction

Surgical or Obstructive Jaundice is basically a biochemical derangement resulting in physiological changes due to non deliverance of bile into the intestinal lumen as a consequence of anatomical alterations caused by a variety of pathologies involving the biliary tract & pancrease, which is mostly incurable with medicines, sometimes palliated by endoscopic procedures and majority of the time cured or palliated by surgery. The biliary passages may be obstructed in different ways, at different levels of the extrahepatic duct system. Better understanding of the pathophysiology, preoperative preparation of the patient and curative or palliative surgical procedures have certainly improved the mortality and morbidity of these patients. (1)

Surgical jaundice is a common entity seen in surgical wards or in general practice. The challenge it poses in the diagnosis is totally elusive occasionally, more so in the therapeutic aspect & its outcome. Noninvasive investigations like Real Time B mode ultrasonography and fibreoptic gastroduoden-oscopy are particularly valuable in preoperative diagnosis and planning of the operative procedure. It is one of the few areas where measures are started, along with diagnostic evaluations, towards preventing and managing the complications. (2)

Materials and Methods

Obstructive jaundice patients admitted in all the six surgical units at Rajiv Gandhi institute of medical & general Hospital srikakulam from august 2016 to June 2017. The written Informed Consent was taken and was studied and evaluated. On admission a detailed history and clinical assessment of the problems were made. Preliminary biochemical investigations were carried in all the patients followed by real-time ultrasonography, ERCP, MRCP and CT scan if necessary.

If operable lesion were detected patients underwent a careful preoperative preparation.

Histopathological examination was conducted in relevant patients. They were followed in the post operative period and subsequent to their discharge. Our patients were referred by local general practitioners and colleagues from within the hospitals and may be considered a relatively unselected group. This series should therefore be a representation of the problems likely to be encountered in any large district hospitals.

Observation and Results

Table 1: Distribution According to Sex

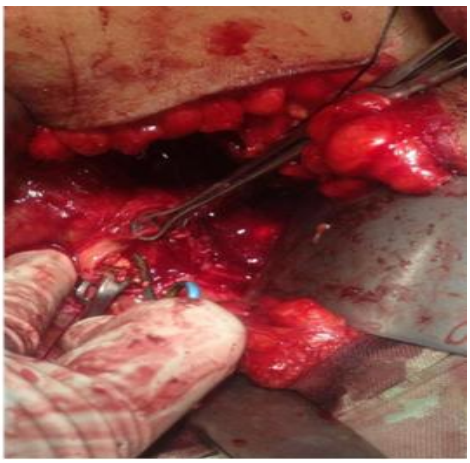
	SEX INCIDENCE	
MALE	18	60%
FEMALE	12	40%

Table 2 : Distribution according to Aetiology

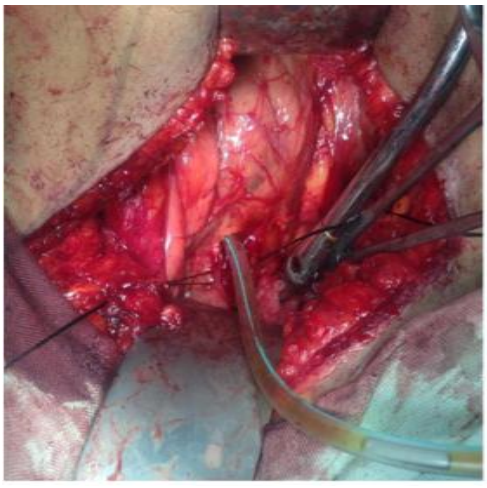
	Aetiology
Carcinoma Head of –Pancreas	04
Periampullary Carcinoma	05
Choledocholithiasis	12
Carcinoma Gall Bladder	02
Secondaries At Porta Hepatis	NIL
Choledochal Cyst	02
Cholangiocarcinoma	NIL
Klatskin Tumour	02
Stricture CBD	02
Cystic Lesion Pancrease	01

Table 3: Distribution according to Treatment

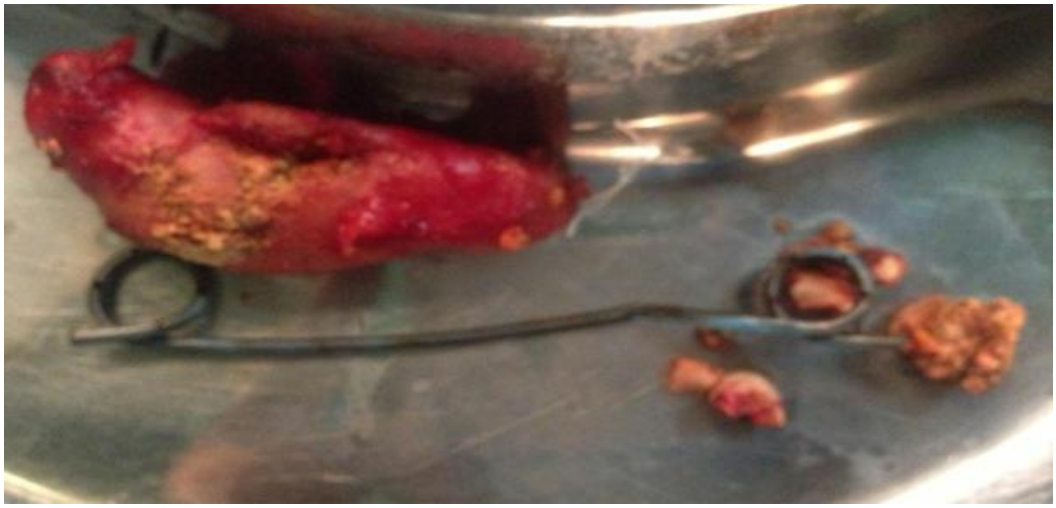
	Treatment
Whipples Procedure	07
Cholecystojejunostomy	06
Choledocholithotomy	10
Bilary Drainage Procedure	03
Conservative	01
Ercp And Procedure	2



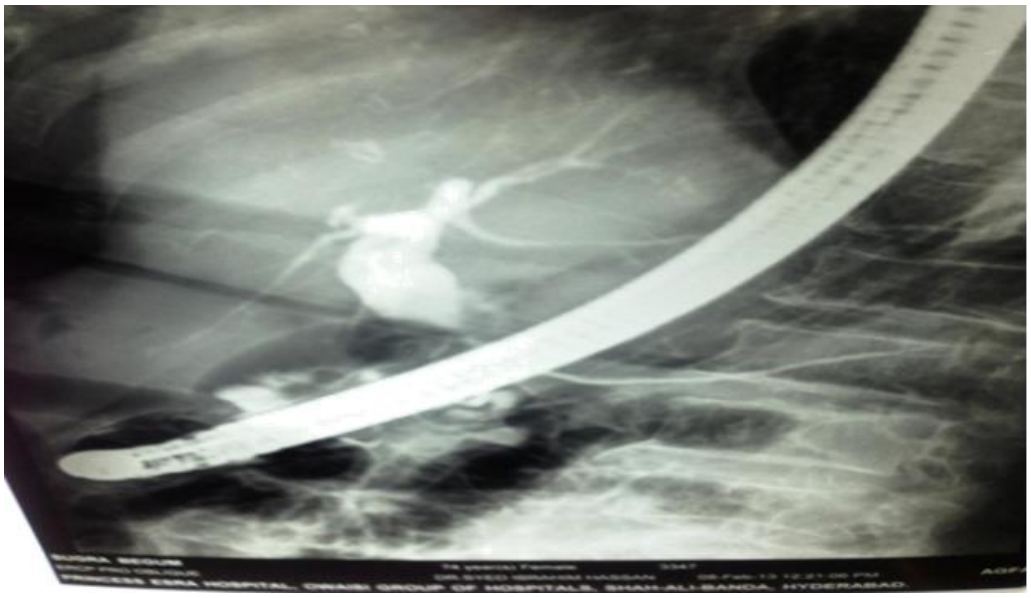
ERCP- Multiple stones in lower 1/3rd of CBD with stent-in-situ **on-exploration:** CBD with multiple caliculi and stent-in-situ



flow after insertion of T-tube T-tube in-situ with closure of CBD



Retrived stones along with stent, cholecystectomy specimen



ERCP- fusiform dilatation of CBD from CHD to lower end with smooth tapering. (TYPE-I CHOLEDOCHAL CYST)

MRCP- fusiform dilatation of CBD from CHD to lower end with smooth tapering.

Discussion

Age incidence of malignant obstructive jaundice is 80% in the age group of 60-80 years in the west and rare before 45years of age.[3,4,5] In our study almost all of the patients with malignancies are between 40-60 years of age group. The earliest age of presentation is in 35 years female with periampullary carcinoma and 36 years male with carcinoma head of pancrease. Two case presented with Choledochal cyst at an elderly age of 60 and 74 years respectively, female with the age incidence of Choledocholithiasis varies from age group of 40-60 yrs.In our study regarding sex incidence of patients out of the malignancies of the pancrease 3 of them were men and 1 was female. showing higher incidence of malignancies in men when compared to women. This was in contrary to SEER program showing incidence 12.1 per 10000 in men and 9.6 per 10000 in women.[10] CBD stones were found in equal incidence in men and women in our study.

In considering the etiology, the most common cause of obstructive jaundice in our series was Choledocholithiasis accordingly to 40% of cases were Choledocholithiasis and most have cholelithiasis as said 11% of the patients with gall stones at surgery will have CBD stones.

Two cases were of Choledochal cyst. The second most of the patients presented with malignant obstructive jaundice in our study were of periampullary carcinoma i.e.40% of total malignant causes of obstructive jaundice in our study are of periampullary carcinoma.

Jaundice seen in all the cases as the hallmark of the presentation especially both in malignancies and stone disease. Jaundice was of waxing and waning type in periampullary lesions and in case of Choledocholithiasis and progressive in cases of carcinoma head of pancrease. Jaundice correlates positively with mortality after surgical procedure and these have a higher incidence of septic, renal and nutritional complications. Major recent advances have revolutionized approach to obstructive jaundice ultrasound is the best investigative tool which distinguish medical from surgical jaundice.[6,3,4,5] CT scan forms the corner stone in the diagnosis of malignant obstructive jaundice, evaluation, staging operability invasion of vessels and adjacent organs. In case of hilar obstruction MRCP becomes important.[4] In our study upper GI endoscopy and biopsy are done for periampullary carcinoma and head of pancrease mass proceeded for surgery after an ultrasound and a normal chest x-ray was found.

In our study Whipples procedure was done for 6 cases and 6 cases of malignancy underwent palliative cholecystojejunostomy. Two cases of Choledochal cyst underwent hepato-jejunostomy. ERCP and stenting with stone removal was done for two cases with Choledocholithiasis. Ten cases of Choledocholithiasis underwent open choledocholithotomy & cholecystectomy.

Though we had laproscpoic facilitated due to lack of expertise open choledocholithotomy was preferred and was done with absolutely no morbidity and mortatily. A median follow up of 3-18 months was done. we lost following for most of the patients after 6months. Those followed up has no post procedure complications.

Conclusion

In this study 30 cases of obstructive jaundice due to different etiologies have been studied for a period of 11months period. In the management of obstructive jaundice , the most critical step is to identify the cause of jaundice, whether the obstruction is due to operable extra hepatic cause or due to an in operable intra hepatic cause. This decisive step is dealt with in every case by careful history, clinical examination and radiological investigations.

Of the 30 cases, 18(60%) were females and 12(40%) were males. 14(47%) patients were 50years and above, 16(53%) patients were between 30-50 years of age. The presenting complaint common to all the patients was jaundice .The average duration of which at the time of admission is 2 months to 1 year. The associated complaints were pain abdomen, pruritis and

fever.Out of 30 case reports hepatomegaly seen in 1 case and serum bilirubin, serum ALP and other liver enzymes are elevated above normal levels in all the cases.Pain x-ray of the abdomen walls not useful in the diagnosis of the cases, whereas ultrasound has been the best useful tool at arriving the diagnosis in all the cases. It showed the presence of intrahepatic dilatation in all cases and the cause of obstruction was also revealed in all the cases. Hence ultrasound has been the most useful tool in the diagnosis of obstructive jaundice.

CT scan has been invaluable in assessing the stage and operability for the cases particularly malignant obstructive jaundice. For both the cases treated by pancreatico-dueodenectomy CT scan is able to give the information regarding tumor size, location and invasion, hence it is very useful in planning the surgery pre operatively either palliative or curative. Percutaneous cholangiography is being used in one case of carcinoma klatskin tumor in the era of magnetic resonance imaging because it not only provides information regarding the level of obstruction but, also provides simple means of decompression of the billiary tract as a means of palliative procedure through placements of stents.Most of the patients presented to us particularly of malignancies are in a state of poor general condition due to there late presentation with severe jaundice and thereby decreased synthetic function of the liver. Hence they require supplementation of vitamins especially A, D, E, K and blood transfusions to correct anemia.

Laprotomy was advocated in all of these cases. A few weeks delay in extracting the stone in the hepato-biliary tree will have no material effect on the outcome and sequele of unrelieved obstruction like biliary cirrhosis will take 4-5 years to develop. In cases of malignancy prognosis is not changed by the delay but one should keep in mind that palliation in the form of relief in itching and pain is the best thing we can do to these miserable patients Ten cases were found to have Choledocholithiasis preoperatively by means of ultrasound abdomen alone we operated and all the ten have cholelithiasis. cholecystectomy with choledocholithotomy was done in this cases. In twelve cases a preoperative diagnosis of of malignancy was obtained by means of ultrasonography, CT and ERCP of which ultrasonography was the most cost effective. Five of these were periampullary carcinoma, four cases were carcinoma head of pancreas, two were carcinoma of gall bladder. six of these twelve cases were resectable and pancreaticoduo-denctomy was done, four were advanced malignancies and a palliative cholecystoje-junostomy was done, one case of carcinoma of gall bladder treated with extended cholecystectomy. All cases of Choledocholithiasis recovered well and were asymptomatic at follow up after one year .two cases of choledochol cyst were operated with roux-en-y hepaticojujen-ostomy, lost follow up. It is evident that the cause of obstruction influenced the prognosis irrespective of the type and extent of surgery performed .surgery for patients with advanced malignancy in the form of palliative procedure is the best one can offer which symptomatically relieves the patient and improves quality of life.Duration and severity of jaundice has an important bearing on the outcome of surgery apart from age, cause general condition and operability of lesion.

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