

Original Article

Role of Intervention in Alleviating Symptoms of Patients with Obstructive Jaundice of Malignant Pathology; A Retrospective Study in Tertiary Care Hospital of Lahore

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Abstract

Objective: to assess the role of intervention and MDT in alleviating symptoms of patients with jaundice of malignant obstructive pathology so the ratio of mortality and morbidity can be reduced.

Methods: It is a retrospective study consisting of 62 patients having obstructive jaundice due to malignant pathology who were presented during January 2015 to January 2023 were studied. Patients were investigated, diagnosed and staged. Their operability and resectability were assessed according to NCCN guidelines.

Results: Among 62 patients 61% were females while 39% males. Most effected age group was 40-53 years. Mostly obstructive jaundice was reported due to Carcinoma of head of pancreas 56% and second most common pathology was periampullary. Interventions done to relieve symptoms include Whipple procedure (52%), double bypass (23%), ERCP/PTBD (8%), and DP with splenectomy (3%). The outcome of these interventions shows 58% of patients were alive while 24% of pathology recurred.

Conclusion: Whipples' procedure has encouraging results in decreasing the death rate among patients with malignant obstructive jaundice. The most common cause of malignant obstructive jaundice is the carcinoma of the head of the pancreas which is more prevalent in the female population. Palliative surgery is the only treatment modality available for many patients as this disease presents in advanced stages. This study suggests that early diagnosis and treatment play an important role in the prognosis of patients with obstructive jaundice with less recurrence in patients that were tumor free. This study highlights and emphasizes the importance of MDT as interdepartmental delay and long investigation time contribute to high mortality.

Keywords: Intervention, Obstructive jaundice, Whipples' procedure, Malignant pathology

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Introduction

Jaundice in a patient can be due to a wide variety of benign or life-threatening disorders.¹ Jaundice as a result of obstruction of the bile duct is surgical jaundice which can be due to gall stones, strictures, and malignancy, such as cholangiocarcinoma (jaundice in these cases is persistent and progressive), periampullary carcinoma, carcinoma gallbladder and carcinoma head of the pancreas.² According to research the cholelithiasis is the most common cause of obstructive jaundice³ malignancy can also be life-threatening is in 20% of cases resectable depending upon the time of presentation.⁴ Common

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patients with malignant disease are present with worsening jaundice and sometimes with right upper quadrant pain or features of cirrhosis if already present.⁵ Assessing the severity of the disease via assessing liver function, serum bilirubin, ERCP, ct scan, etc. helps in the decision whether either condition can be alleviated by surgical or non-surgical means. The most potent risk factor associated with poor post-surgical outcomes is Hyperbilirubinemia.^{6,7,8} Literature shows that biliary decompression by surgical or non-surgical means can beneficially affect the outcomes.^{9,10} The objective of our study is to assess the role of intervention and MDT in alleviating symptoms of patients with jaundice of malignant obstructive

pathology so the ratio of mortality and morbidity can be reduced.

Methods

Study design and settings: A retrospective cohort study was undertaken during January 2015-january 2023 on 62 patients in Mayo Hospital Lahore.

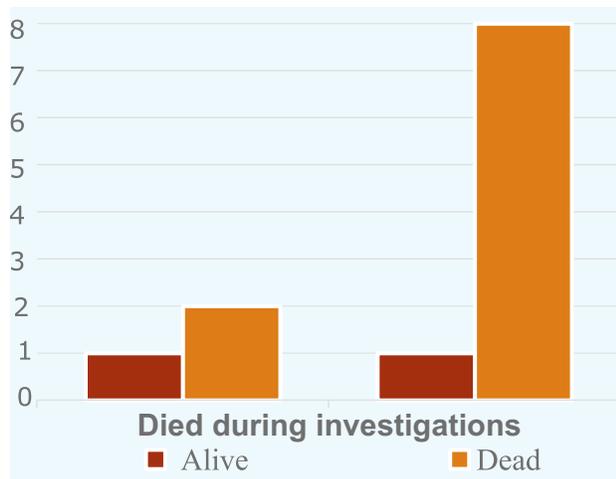
Inclusion criteria: patients having obstructive jaundice due to malignant pathology who were presented to us in given time were the part of the study. Patients were investigated, diagnosed and staged. Their operability and resectability were assessed according to NCCN guidelines.

Statistical methods: SPSS 21 and Microsoft excel & word are used for data analysis and interpretation.

Patients were investigated, diagnosed and staged. Their operability and resectability were assessed according to National Comprehensive Cancer Network (NCCN) guidelines.

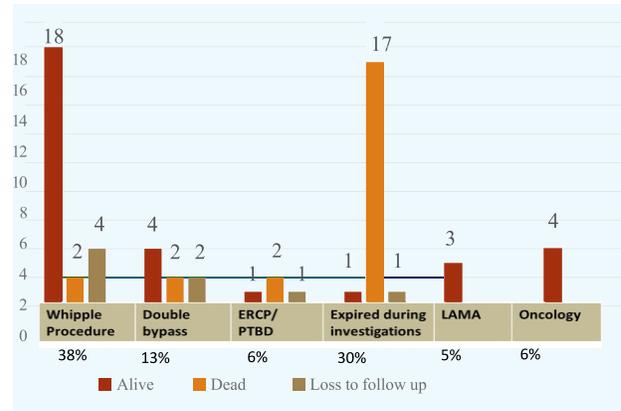
Results

Among 62 patients 61% were females while 39% males. Most effected age group was 40-53 years. Mostly obstructive jaundice was reported due to Carcinoma of head of pancreas 56% and second most common pathology was periampullary. Interventions done to relieve symptoms include Whipple procedure (52%), double bypass (23%), ERCP/PTBD (8%) and DP with splenectomy (3%). Outcome of these intervention shows 58% of patients were alive while 24% pathology recurred. (Table;1)



Graph 1:

Graph 1&2 shows that most of them died during investigations while the Whipple procedure saved many lives (graph 2)



Graph 2:

Table 1:	
Age	
25-39years	8%
40-55years	53%
56-70years	34%
>70years	5%
Gender distribution	
Male	39%
Female	61%
Regions involved	
Periampullary	32%
Head	56%
Tail and uncinata	2%
Body	3%
Gallbladder	5%
Interventions done	
Whipple procedure	52%
DP with splenectomy	3%
ERCP/ptbd	8%
Double bypass	23%
Late investigation	14%
Outcomes of interventions	
Alive	58%
Dead	23%
Loss to follow up	19%
Recurrence of operated cases	
Tumor free	76%
Recurrence	24%

Discussion

For general surgeons' obstructive jaundice is not only a diagnostic and therapeutic challenge but also contributes to a high rate of morbidity and mortality¹¹, especially

in developing countries. This study was done in the setting of a public tertiary care hospital to describe the experiences in the management of this challenging disease, as this problem was never studied on a statistical basis.

The patients in this study had malignant obstructive jaundice which correlates with other studies reported elsewhere^{2,12,13} contrarily the research in Ethiopia¹⁴ reported that the most common cause of obstructive jaundice is choledocholithiasis which is a benign disease. our study reported that the most common cause of malignant and benign obstructive jaundice was carcinoma of the head of the pancreas and choledocholithiasis respectively. Also, studies conducted in Saudi Arabia and Yemen claimed that the disease of the biliary tract resulting in obstruction was frequently associated with the *Ascariasis Lumbricoides* infestation.¹⁵ These findings reflect differences in an etiological spectrum from one center to another.

In this study, malignant obstructive jaundice was more prevalent in females than in males, in the same vein with the results of other researchers^{2,12} according to a study held in Peshawar, Pakistan malignant obstructive jaundice was more present in males.¹¹

This study shows that obstructive jaundice due to malignancy is mostly associated with the age group of 40-55 years (53%) and 56-70 years (34%). This agrees with the other researches that the incidence of malignant obstructive jaundice is higher in patients of the older age group.^{12,13}

In our study, most of the jaundiced patients with malignant obstructive pathology underwent Whipple's procedure (58%) and it was associated with less mortality. A similar treatment outcome was also reported in the study conducted in America.¹⁶ The role of palliative surgery in patients with malignant obstructive jaundice is either due to preoperative biliary decompression or delayed presentation with advanced-stage carcinoma that is very difficult to resect.

According to a study published in the World Journal of surgical oncology preoperative biliary decompression showed better post-surgical outcomes and complete or nearly complete restoration of biliary function⁴ but our study lacks data in this aspect.

In our study, the highest mortality is associated with long investigations and a lack of interdepartmental coordination. MDT can make this coordination better as it can offer a full range of investigative panels (cross-sectional imaging, percutaneous procedures, endoscopic retrograde cholangiopancreatography) and coordination of experts (surgeon, oncologist, psychologist, nurses, paramedics).¹⁷

Conclusion

Jaundice due to Malignant obstructive pathology is one of the most common surgical problems in our setting and poses a serious challenge. The most common cause of malignant obstructive jaundice is the carcinoma of the head of the pancreas which is more prevalent in the female population. Palliative surgery is the only treatment modality available for many patients as this disease presents in advanced stages. This study suggests that early diagnosis and treatment play an important role in the prognosis of patients with malignant obstructive jaundice with no recurrence in 76% of patients and tumor-free. Highlighting and emphasizing the importance of MDT, as interdepartmental delay and long investigation time contribute to high mortality.

Conflict of Interest: *None*

Funding Source: *None*

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