



## PATTERN OF CLINICAL PRESENTATION AND DEMOGRAPHIC PROFILE OF PATIENTS DIAGNOSED WITH PERIAMPULLARY CARCINOMA IN A TERTIARY CARE CENTRE OF NORTH INDIA.

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**ABSTRACT** Periampullary carcinoma can be broadly classified as those tumors arising out or within 1 cm of papilla of vater and include ampullary, pancreatic, distal CBD and duodenal cancer.

**AIM:** In the present study we intend to study the clinical presentation and demographic profile of the patients diagnosed with periampullary carcinoma.

**MATERIAL AND METHODS:** Patients of Periampullary carcinoma, who were registered at our department from January 2013 till 31st August 2017, were enrolled for this study. Patient's demographic and clinical presentation data was collected and was analysed using SPSS statistics 17.0 software.

**RESULT:** Median age of patient was 47 years. Male to female ratio was 2.6:1. Jaundice was the most common presenting symptom followed by loss of appetite. The most common site of origin was common bile duct (CBD). Only 15.8% of patients presented at metastatic stage with liver as the most common site of metastases.

**KEYWORDS :** Periampullary Carcinoma, India, Clinical, Demographic Profile.

### INTRODUCTION

Periampullary carcinoma, as the name suggest originate from the region around (Peri-) the ampulla. The ampulla here refers to the ampulla of vater. Therefore, this entity consists of cancer that originate either from pancreatic head, distal end of common bile duct (CBD), ampulla of vater or duodenum. It consists of 3%-4% of gastrointestinal malignancies [1]. In the present study we intend to assess the clinical presentation and demographic profile of the patients diagnosed with periampullary carcinoma at the tertiary care centre of North India.

### MATERIAL AND METHODS

Patients of Periampullary carcinoma, who were registered at department of radiotherapy and oncology at Maulana Azad Medical College and Lok Nayak Hospital from January 2013 till 31st August 2017, were enrolled for this study.

Patients who were included in this study were those who had histologically proven, chemotherapy naïve carcinoma, arising out or within 1 cm of papilla of vater - including ampullary, pancreatic, distal CBD and duodenal cancer. Patients with refractory or relapsed disease status at the time of presentation or who had history of chemotherapy/radiotherapy were excluded from this study.

Structured data included information about patient's demographic profile and clinical presentation. The data was represented as absolute number, percentage and median (range: minimum to maximum), whichever applicable. The descriptive statistics was derived from SPSS statistics 17.0 software.

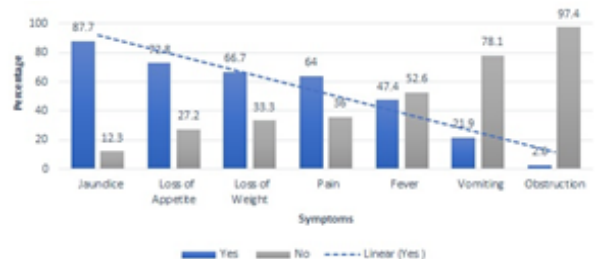
### RESULTS

Total of 114 patients were enrolled in the study that were registered in our department from 01 January 2013 till 31st August 2017. Pattern of male predominance was seen after the statistical analysis. Out of 114 patients 82 patients were male constituting 71.9% of study population. Median Age of presentation was 47 years (range: 12 to 72 years). The youngest age of presentation was 12 years. There were total of 30 patients (26.3%) aged 40 or less. Among the study subjects the median height was 168cm (Range: 135-185cm), median weight was 51 Kg (Range: 22 – 85 Kg) and median value of body surface area was 1.57 sqm (Range: 0.94-1.98).

There was no family history of any cancer related death in the family or similar diagnosis in any first-degree family member. No patient had history of gastrectomy, a known risk factor of periampullary carcinoma. The addiction to tobacco and alcohol was seen in 45.6% and 24.6% of patients, respectively. Among the study group 43% subjects were vegetarian while 57% patients were non-vegetarian in diet.

On evaluation of medical history 14% of subjects had diabetes mellitus (DM), 3 patients were seropositive for HBsAg and one patient each for HCV and HIV, at the time of presentation. However, no patient had history of tuberculosis or hypertension.

Jaundice (87.7%) was the most common presenting symptom followed by loss of appetite (72.8%) and weight loss (66.7%). Pain was present in 64% of patient. Other common presenting complaints were fever and vomiting. However only 3 out of 114 patients presented with the features of intestinal obstruction.



**Figure 1:** Bar diagram showing the pattern of clinical symptoms at the time of presentation.

Common bile duct (38.6%) was the most common site of primary origin followed by Duodenum (30.7%) and ampulla of vater (14.9%). Pancreatic origin was seen only in 14% of study group. Histopathologic pattern revealed that moderately differentiated adenocarcinoma was the most common pattern of occurrence constituting 86.8% of total. One patient had adeno-squamous histology and one patient had well differentiated neuroendocrine tumor.

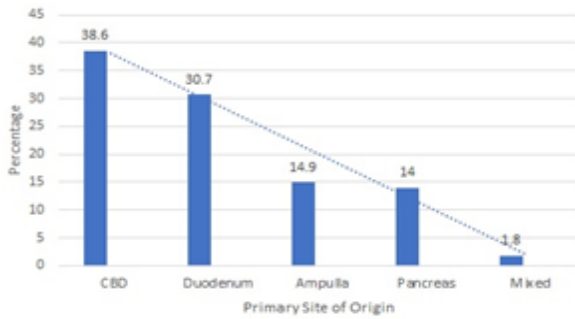


Figure 2: Frequency chart of primary site of origin.

84.2% patients presented with localised disease while 15.8% patients presented with metastases. Liver was the most common site of metastases followed by omentum and supraclavicular lymph nodes.

	Number	(%)
<b>Age (years)</b>		
Median	47	
Range	12 to 72	
<b>Gender</b>		
Male	82	71.9
Female	32	28.1
<b>Height (cm)</b>		
Median	168	
Range	135-185	
<b>Weight (Kg)</b>		
Median	51	
Range	(22-85)	
<b>BSA (sqm)</b>		
Median	1.57	
Range	(0.94-1.98)	
<b>Family History</b>		
Cancer related death	0	0
Similar Diagnosis	0	0
<b>Addiction</b>		
Tobacco	52	45.6
Alcohol	28	24.6
<b>Diet</b>		
Vegetarian	49	43
Non-Vegetarian	65	57
<b>Medical History</b>		
TB	0	0
HTN	0	0
DM	16	14
HIV	1	0.9
HBsAg	3	2.6
HCV	1	0.9
<b>History of gastrectomy</b>	0	0
<b>Presenting complaints</b>		
Jaundice	100	87.7
Pain	73	64
Vomiting	25	21.9
Loss of Appetite	83	72.8
Loss of Weight	76	66.7
Fever	54	47.4
Intestinal Obstruction	3	2.6
<b>Primary site of origin</b>		
Pancreas	16	14
Ampulla	17	14.9
CBD	44	38.6
Duodenum	35	30.7
Mixed	2	1.8
<b>Histopathology</b>		
WD Adenocarcinoma	11	9.6
MD Adenocarcinoma	99	86.8
PD Adenocarcinoma	2	1.8
WD NET	1	0.9
Adeno-Squamous	1	0.9

<b>Disease Status</b>		
Localised	96	84.2
Metastases	18	15.8
<b>Site of Metastases</b>		
Liver	15	83.3
Omentum	2	11.1
Supraclavicular Nodes	1	5.6

**DISCUSSION**

Periampullary carcinoma can be broadly classified as those tumors arising out or within 1 cm of papilla of Vater and include ampullary, pancreatic, distal CBD and duodenal cancer [2]. In this study the average age of patient was 47 years. This figure is in close approximation to median age of 50 years, reported by AIIMS study [3] and 55 years, as reported by Nepal and Manipal colleagues. The ratio of Male to female preponderance was noted to be 2.6:1. However, both AIIMS and Manipal colleagues have reported this ratio of 2:1. Jaundice was the most common presenting symptom followed by loss of appetite. The most common site of origin was common bile duct (CBD), this finding is in contradiction to most of the other studies that report pancreas [4] to be the most common site of origin. Only 15.8% of patients presented at metastatic stage with liver as the most common site of metastases.

**CONCLUSION**

Our institutional observation suggests that periampullary carcinoma is commonly seen in fifth and sixth decade of life with males having greater propensity of developing this disease by 2.6 times more than females. Jaundice and loss of appetite is the most common presenting complaints, leading to most patient being diagnosed at early localised and operable stage. Only 15.8% patients presented with metastatic disease with liver being the most common site of metastatic involvement. Post-operative findings suggest that moderately differentiated adenocarcinoma is most common histopathology observed in these patients and common bile duct being the most common site of primary origin of this disease.

At present, there is paucity of data in periampullary carcinoma as a single entity. Therefore, more number of studies with greater patient population is warranted to better define patient’s demographic and clinical profile.

**CONFLICT OF INTEREST**

The author declares that he has no competing interests.

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