



ORIGINAL RESEARCH PAPER

Pharmacology

PERIAMPULLARY ADENOCARCINOMA: A RARE REPORT FROM SOUTH INDIA

KEY WORDS: Periampullary carcinoma, Case report, pancreatic cancer, Whipple procedure, ampulla of Vater.

Dr. T. Purushoth Prabhu*

Professor and Head department of Pharmacognosy, C.L.Baid Metha College of Pharmacy, Chennai. *Corresponding Author

Dr. Daniel Sundar Singh

Assistant Professor, Department of Pharmacy Practice, C.L.Baid Metha College of Pharmacy, Chennai.

Mr. Hariharan

C.L.Baid Metha College of Pharmacy, Chennai.

ABSTRACT

Periampullary malignancy is the term utilized for neoplasms emerging from the head of pancreas, ampulla of Vater, distal bile pipe and periampullary distinct of duodenum. Of these, the pancreatic adenocarcinoma conveys the most noticeably awful anticipation with greater part of mortalities. Studies have shown that pancreatic carcinoma has the most limited middle endurance of 17.1 months of all periampullary carcinomas. Herein, we present a case of a 63-year-old male patient without any history of trauma or important previous symptoms presented to the tertiary care hospital with compliance of sudden weight loss and abdominal pain over the preceding 3 months. On examination he was deeply jaundice. His laboratory and radiological examination revealed periampullary adenocarcinoma. This individual had successfully underwent Whipple procedure and followed by Chemotherapy. This case is being presented not only the cancer is rare but also to understand and improve better clinical insight on this rare disease.

INTRODUCTION:

Periampullary tumors are defined as those tumors that arise within 2 cm of major papilla in the duodenum and include pancreatic adenocarcinoma, distal bile duct, and periampullary duodenal carcinomas.⁽¹⁾ Ampullary carcinoma is an uncommon malignant tumor originating from the Ampulla of Vater.⁽²⁾ Carcinoma of the ampulla of the Vater is a rare tumor that accounts for approximately 0.2 % of all gastrointestinal malignancies. The incidence of periampullary carcinoma is \square 6 cases per 1,000,000 populations per year.⁽³⁾ Periampullary neoplasms comprise of carcinoma of the ampulla of Vater, common bile duct, pancreas, and duodenum. Obstructive jaundice is the major form of presentation in 65% -75% of patients.⁽⁴⁾ Other presenting features may be a pain, weight loss, anorexia, liver function abnormalities, and pancreatitis. Most of the patients with adenocarcinoma present a late-stage and carry a poor prognosis. Non-metastatic periampullary pancreatic cancer has a median survival of 6-10 months but in metastatic settings, median survival is merely 3-6 months.^(5,6) Treatment of pancreatic metastatic tumor remains a challenge. A cytotoxic drug Gemcitabine is used as a standard agent. Although the response rate is poor, it has shown a significant therapeutic effect in improving quality of life.

Case Report:

A 63-year-old male patient without any history of trauma or important previous symptoms presented to the tertiary care hospital with compliance of sudden weight loss and abdominal pain over the preceding 3 months. On examination, the patient was conscious, oriented, respiratory rate and heart sounds were normal during chest auscultation. A brief history was obtained from a patient regarding his past medical and lifestyle. It has been revealed that he had no known history of chronic diseases such as diabetes mellitus, hypertension and he was not on any medication. He had no social history of smoking and alcohol. This individual is otherwise healthy and he was an active volleyball player at the state-level at the age of 63. His physical examination of the abdomen revealed that the presence of hypochondria mass and ascites. On examination he was deeply jaundiced, scleral icterus was noticed. His initial workup done before presented to the hospital included a CT scan of the abdomen. Laboratory report showed low Hb-10.4 g/dl, abnormal elevation of CA:19-9 1671.5. (Figure A) CT scan showed a nodular lesion in mesenteric root and CT report revealed hypodense mass measuring 2.6 x 2.5 seen in head and uncinated process of

pancreas infiltrating pancreatic duct and common bile duct grossly dilated. PET scan showed mild increased FDG uptake noted in the nodular lesions in celiac region and in mesenteric root (SUV max 1.2) (Figure B & C).

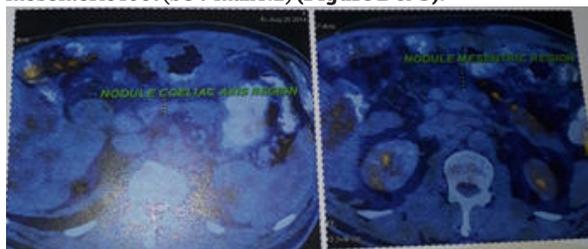


Figure A



Figure B

Figure C

Biopsy report showed ductal adenocarcinoma Grade II, pT3NoMx. A USG abdomen and pelvis revealed mild ascites, minimal left pleural effusion, Epigastric region showed a well-defined cystic area of size 6.8 x 4.3 x 4.3cm (Vol 70cc) (Figure D).



Figure D

In view of the assessment of laboratory and physical examination, this patient was diagnosed with Periapillary Carcinoma. This patient was discussed with Multi-Disciplinary Team (MDT) recommendation were Whipple procedure followed by chemotherapy Gemcitabine with 25% dose reduction. On 25.11.2013 patient underwent a Whipple procedure and decided to single-agent adjuvant chemotherapy with gemcitabine and all laboratory value were normal after Whipple's procedure and the hospital course completed with cycle 1 day 1 chemotherapy and tolerated well. This case has been planned for 6 cycles of Day 1, and, day 15 of II-line chemotherapy with the FOLFRI regimen. The patient received 1st Cycle Day 1 of II-line Chemotherapy. On 15.04 2014 patient completed the chemotherapy 6th cycle day 8 single adjuvant chemotherapy. This case was discussed on the tumor board and has been planned for 4 cycles of chemotherapy with CAPE-OX regimen.

DISCUSSION:

Ampullary carcinoma is a malignant tumor arising in the last centimeter of the common bile duct, and patients with these tumors have been reported to have a relatively favorable prognosis after surgical resection. Among the tumors originated from the ampulla of Vater, poorly differentiated adenocarcinoma is a very rare disease.⁽⁷⁾ Most of the patients with pancreatic adenocarcinoma present at a late stage and carry a poor prognosis.⁽⁸⁾ Resectability is possible in only 15% of cases which increases the long-term survival in almost 25% of patients. 95% of patients usually die within a year and 5-year survival after curative surgery is only 5–20%, thus making pancreatic adenocarcinoma the worst of periampullary cancers.⁽⁸⁾ Commonly periampullary pancreatic adenocarcinoma presents with jaundice, abdomen pain, and weight loss.

In our case, the patient was a healthy sports person and had no history of other significant health issues but suddenly he experienced weight loss and abdominal pain over the preceding 3 months of diagnosis. The cause was not known. Based on a brief history obtained from a patient revealed two factors 1. he had worked for 40 years in Tuticorin V O C Port Trust where he exposed with copper powder which is transported to Sterlite situated in Tamil Nadu, India. During his working period, he was not at all used personal protective equipment particularly a face mask. So, this also should be considered with suspicion of causative factors in this case.2. He was taking Digene or Gelusil suspension for stomach indigestion problem for past 10 years since he used to consume fat diet more.

Treatment of pancreatic cancer remains a challenge. The standard cytotoxic agent is gemcitabine. Although the response rate is poor, it has shown clinical benefit in improving quality of life. Patients treated with gemcitabine have a median survival of 6.2 months and 1-year survival of 20%. Combinations of gemcitabine with several other chemotherapeutic agents such as capecitabine, irinotecan, cisplatin, or oxaliplatin have been studied in trials and have not shown any major advantage in survival.⁽⁹⁾

Shafaq Maqsood et al (2016), reported that the use of gemcitabine in treating periampullary adenocarcinoma and also an effect of capecitabine. This individual has been treated based on the recent literature reports. Our patient was treated with gemcitabine followed by capecitabine successfully.

CONCLUSION:

Ampullary carcinoma is an uncommon tumor beginning at the ampulla of Vater, in the last centimeter of the basic bile pipe, where it goes through the mass of the duodenum and ampullary papilla. Patients ordinarily present with manifestations identified with biliary block. A high list of

doubt is vital with the goal that the suitable lab and imaging studies might be gotten to encourage early finding. Periapillary adenocarcinomas are malignancies with an aggressive course of the disease. Our patient presented with periampullary adenocarcinoma treated with Whipple procedure followed by chemotherapy. This particular patient survived 2 years after diagnosis.

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Declaration Of Conflicting Interest:

The author(s) declare(s) that there is no conflict of interest.

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