

# Case Report: Anaesthetic Management of Case of Periapillary Carcinoma Posted for Whipples Procedure

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**Abstract:** *Pancreatic surgery represents a technically demanding major abdominal procedure that can occasionally lead to a number of pathophysiological alterations resulting in increased morbidity and mortality. Systemic rather than surgical complications cause the majority of deaths. Because patients are increasingly referred to surgery with advanced ages and because pancreatic surgery is extremely complex, anaesthesiologists and surgeons play a crucial role in preoperative evaluations and diagnosis for surgical interventions. The anaesthesiologist plays a key role in perioperative management and can significantly influence patient outcome.*

**Keywords:** pancreatic cancer, pancreatic surgery, perioperative anaesthesia management

## 1. Introduction

Anaesthetic management of a case of periampullary carcinoma presents difficulty as the patients most commonly are elder and has abnormal liver function tests, coagulation abnormalities, intraoperative fluid loss and hypoglycaemia and postoperative pain which can cause significant morbidity and mortality.

## 2. Case Presentation

A 75years old female patient weighing 55kgs, ASA grade III, presented with pain abdomen associated with vomiting, loss of weight, also she has abnormal liver function tests deranged coagulation of Prothrombin Time- 29.57sec, International Normalised Ratio 2.28sec, total bilirubin 8.0 mg/dl, direct bilirubin 6.4mg/dl, indirect bilirubin 1.6mg /dl, Alanine Transaminase - 71IU/L, Aspartate Transaminase 76 IU/L, Alkaline Phosphatase 131 IU/L, was posted for radical cholecystectomy and hepato jejunostomy under general anaesthesia.

### 2.1. Anaesthesia Management:

Pre-anaesthetic evaluation was done. Patient had history of cerebrovascular attack 8yr ago, was taking Tab.Clopidogrel 75mg, Tab.Aspirin 150mg, Tab.Atrovastatin 40mg but stopped 10 days ago. Tab.Phenytoin 100mg was continued.

She had optimised haemoglobin, preloaded with crystalloids and administered vitamin K 10mg IM. No other comorbidities and allergies stated. Patient was shifted to operating room. Two intravenous catheter lines secured to forearms and standard monitors like ECG, NIBP, SPO<sub>2</sub>, ETCO<sub>2</sub> connected. Baseline vitals showed BP 130/80 mmhg, PR 100/min, SPO<sub>2</sub> 100%, ECG within normal limits. Pre-oxygenated with 100% oxygen for 3 mins, pre medicated with Inj.Glycopyrrolate 0.2mg, Inj.Ranitidine 50mg, Inj.Midazolam 1mg, Inj.Ondansetron 4mg, and Inj.Fentanyl 100mic. Did Induction with Inj.Propofol 100mg and Inj. preservative free Lignocaine 60mg, gave muscle relaxant with Inj.Atracurium 25mg, Intubated with 7.0 mm size cuffed ETT and fixed at 20cm after checking bilateral air entry.

Maintained with O<sub>2</sub>, N<sub>2</sub>O, Sevoflurane and Inj.Atracurium by intermittent dosage. Put on volume controlled ventilation with Tidal Volume of 400ml/min, Respiratory Rate 14/min. Random Blood Sugar checked hourly, found one episode of RBS 70mg/dl which was treated with 25% Dextrose. Gave IV fluids, 5 units of crystalloids and 2 units of Fresh Frozen Plasma. Gave 150ml of 20% Mannitol IV and Inj.Frusemide 20mg IV. Urine I/O - 2225/2600. Post op analgesia was given with ketorolac dermal patch on dorsum of chest.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

### 3. Discussion

Pancreatic cancer is the most lethal type of digestive cancer and exhibits a 5 year survival rate of 5% with a range that is correlated with staging and location. The main reason for this extremely poor prognosis is that less than 15% of patients are diagnosed with resectable tumours. Currently

the only curative treatment for pancreatic cancer is surgical resection. Pancreatic surgery represents a challenging and technically demanding major abdominal procedure that occasionally results in a number of pathophysiological alterations during the early postoperative period that account for increased rates of morbidity and mortality. More than 80% of pancreatic cancers are diagnosed in patients older

than 65 years. Many pancreatic cancer patients are or have been heavy smokers, 80% of pancreatic cancer patients have either frank diabetes or impaired glucose tolerance, venous thromboembolism remains a major complication of pancreatic cancer. For these reasons, the patients who undergo a major abdominal surgery are at increased anaesthesiological risk. Anaesthesiologist plays a crucial role during preoperative evaluation, which together with a proper surgical approach. Patient outcome can be significantly influenced by anaesthesiological management starting with patient stratification and selection, continuing throughout the surgical operation and finishing with postoperative care.

#### **4. Conclusion**

Preoperative optimization of haemoglobin, administration of vitamin K and adequate preloading was done. General anaesthesia was administered and as epidural cannot be placed for analgesia due to deranged coagulation profile, opioids were given for analgesia, fluid management was thoroughly monitored, blood sugars were taken care and postoperative analgesia was provided with ketorolac patch.

A holistic approach addressing all challenges in management of periampullary carcinoma can decrease morbidity and mortality and improves the patient outcome.

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