

## Bleeding Duodenal Tumor with Gall Bladder Infiltration

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### Abstract

Duodenal tumors with gall bladder infiltration is rare as it carries high mortality and morbidity as it's difficult to manage operatively. We reported a case of a 74 years old lady with bleeding first part of duodenal tumor with gall bladder infiltration.

**Keywords** Duodenal tumor; Gall bladder infiltration

### Introduction

Duodenal tumors are uncommon. They represent only 0.3% of all gastrointestinal tumors, as first part of duodenal (D1) tumors account for about 4% of all duodenal tumors. By the virtue of the anatomy of the duodenum, it carries high mortality and morbidity for patients whom either went for surgery or not. We reported a rare case of a 74 years old lady with bleeding D1 tumor and gall bladder infiltration. She successfully underwent chemo-embolization and was further planned for definitive surgery.

### Case Presentation

74 years old Malay lady presented with hematemesis associated with anemic symptoms. On examination she was pallor, per abdomen was soft, and there was mass palpable over the right hypochondriac region. Patient was subjected for esophagogastroduodenoscopy which showed tumor almost half of D1, sparing D2 which was fragile and slowly oozing blood.



**Figure 1:** CT Scan shows tumor arising from the duodenum.



**Figure 2:** CT scan shows tumor infiltrating the Hartmann's pouch of the gall bladder.

Biopsy was taken on the second scope and HPE revealed poorly differentiated carcinoma of duodenum which on IHC immunoreactive to Pancytokeratin and negative for S100, CD117, D0G1, Desmin, CK20, CD3, CD20 and LCA. CT Thorax, Abdomen and Pelvis revealed heterogeneous mass at D1 with extension to gallbladder or gallbladder mass with extension to D1, and possible head of pancreas and under surface of right liver lobe at segment V involvement, portal node metastasis, patchy lung consolidation, no liver or lung metastasis and right renal cortical cysts. Patient had multiple admissions for symptomatic anemia secondary to bleeding duodenal tumor as she underwent 2 times Trans-arterial Chemo-embolization. She was planned for definitive surgery, which is Whipple Procedure, but she currently refused for any major undertaking and was planned for palliative therapy.



**Figure 3:** CT scan shows poor plane of tumor with the head of pancreas.



**Figure 4:** The incidence of duodenal tumor with gall bladder.

## Discussion

The incidence of duodenal tumor with gall bladder infiltration is rare, but there were several cases regarding gall bladder tumor with duodenal infiltration reported. The detection rates of early small bowel neoplasms are very low due to the fact of limited modalities to visualize the entire small bowel. Thus a multimodal approach is useful in the diagnosis as an adjunct to history and clinical findings. These include imaging and endoscopic modalities such as CT, Small bowel study, esophago gastroendoscopy and capsule endoscopy. In one retrospective case study, overall actuarial survivals at 3 and 5 years for all patients were 43% and 37%. Resectable tumor groups had 3- and 5-year survival rates of 61% and 54%. However the extend of resection did not affect patients survival. Factors associated with decreased survival include metastasis to lymph nodes, advanced tumor stage, and positive resection margins (Figures 1-4).

Most resectable duodenal tumors are resected preferably with pylorus preserving pancreaticoduodenectomy [1]. A safe alternative of pancreas-sparing duodenectomy can be done in patients whom are unable to tolerate pancreaticoduodenectomy. Tumor resection has proven to significantly improve the 5 year survival compared to the palliative group. However post-operative complications are prevalent in 48% of patients. Other surgical options include bypass surgery [2]. Less invasive procedures such as stenting, radio embolization and endoscopic intervention are also done in duodenal carcinoma. Although surgery is the proven treatment for resectable duodenal carcinoma, several study has reported the use of adjuvant chemo radiotherapy following surgery may improve loco regional control of the tumor but do not improve survivability [3,4]. Meanwhile for palliative group, duodenal stenting allows patient to tolerate solid diet and discharged home even though in a short period for patients with gastric outlet obstruction. Median post stenting survival is 10 weeks. Gastrojejunostomy is another palliative option but more preferable in patients with prolonged prognosis. In patients with acute bleeding, endoscopic therapy may provide good bleeding control with high success rate. Alternative of emergency arterial embolization is effective and safe. In some patients, it can provide a window of opportunity for surgery.

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