

## Uncommon pancreatic tumor - A case report

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### Abstract

*Anaplastic carcinomas of pancreas are a rare pancreatic tumor of epithelial origin showing various morphological features. Due to aggressive behavior, rapid spread and no effective cure, it is very important to recognize this distinct variety. We hereby describe a brief review of a case of anaplastic carcinoma of pancreas.*

**Key words :** Uncommon Pancreatic cancer, Anaplastic carcinoma

### Introduction

Anaplastic carcinomas of pancreas are rare aggressive tumor and account for 2-3% of all pancreatic tumors<sup>1,2,3,4</sup>. These are also known as pleomorphic carcinoma, pleomorphic giant cell carcinoma, spindle cell carcinoma, sarcomatoid carcinoma, and undifferentiated carcinoma. We hereby are presenting a case of anaplastic carcinoma of pancreas.

### Case report

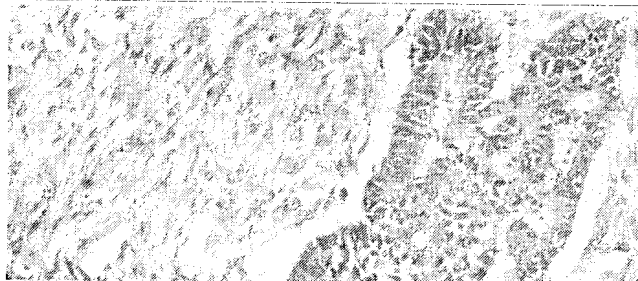
A 55 years old male diabetic patient is suffering from pancreaticolithiasis for last two years. He developed intermittent colicky pain in left hypochondrium for three months. He also experienced loss of appetite and was losing weight for one month. With these complaints patient attended our outpatient department. On examination, only mild tenderness was felt in left hypochondrium. No organomegaly could be identified on manual palpation. The patient was investigated accordingly. All the biochemical parameters were found normal except an increase of CA 19.9 level (183 U/ml). USG showed dilated main pancreatic duct (17mm) with pancreatic calculi. X ray of abdomen also confirmed presence of calculi. Then CT scan of abdomen was performed. It revealed multiple calculi within dilated main pancreatic duct. A mass lesion of 6.5x5x5cm is detected in the tail region of pancreas. No ascitis or abdominal lymphadenopathy is noted. CT guided FNA was done. The smears were positive for malignant cell. Further characterization was not possible on cytology only. Then the patient was admitted under Hepatobiliary and Pancreatic department. He was then decided for surgical management. Under

combined thoracic epidural and general anaesthesia laparotomy was done by midline incision. A tumor was present in the distal body and tail of pancreas, free from surrounding structures. A small 2 cm nodule is also found in the hepatic segment IVA. The patient underwent excision of tumor mass with distal pancreatectomy, splenectomy, hepatic nodulectomy, pancreaticolithotomy and Roux- en- Y pancreaticojejunostomy.

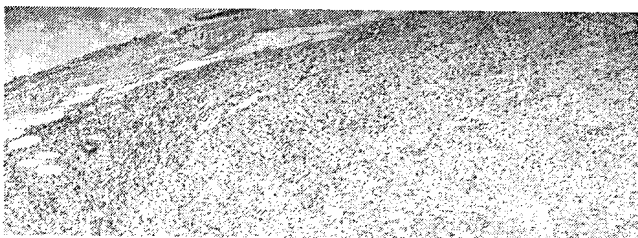
The specimen was sent for histopathological examination. In our histopathology department we received a 9.3x6.4x5.5cm part of distal pancreas and a 11x5.5x2.5cm spleen enmass with attached fibrofatty tissue. The cut section of pancreas shows a 7.8cm tumor mass occupying the body and tail. The spleen was unremarkable on gross examination. A small 0.5 cm lymph node was identified in the splenic hilar tissue. Also found is a 3.0x2.2x1.4cm piece of liver tissue in a separate container. It contains a 1.5cm solid grey white nodular area.

Microscopic examination of pancreatic tumorous lesion showed a malignant neoplasm. It consisted of anaplastic epithelial cells arranged in glands and clusters (Fig.1). A large proportion of tumor cells were spindle shaped and present diffusely forming a sarcomatoid appearance (Fig.2). The spleen showed features of congestion. The splenic hilar lymph node was free of metastasis. The grossly described liver nodule shows a metastatic tumor containing malignant cells arranged diffusely as well as in glandular pattern. A diagnosis of anaplastic carcinoma (sarcomatoid) with hepatic metastasis was made.

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**Figure 1.** Hematoxylin-eosin staining of the tumor (x100). The tumor consists of a variety of features: pleomorphic spindle cells and anaplastic epithelial cells forming glandular pattern.



**Figure 2.** Hematoxylin-eosin staining of the tumor (x100). The mesenchymal component in the tumor.

### Discussion

Anaplastic carcinomas of pancreas are more common in elderly male with an age peak in the seventh -ninth decades of life<sup>3,5</sup>. Weight loss, fatigue, loss of appetite, abdominal pain, nausea, vomiting, and diarrhoea are the usual clinical presenting symptoms. Clinical signs include a palpable mass and jaundice. Our patient had some of these clinical symptoms and palpable mass. His laboratory findings were within normal limit except an increase of CA 19.9 level.

Radiological findings of anaplastic carcinoma of pancreas are nonspecific. CT findings of our patient were consistent with pancreaticolithiasis and a mass lesion in the tail region of pancreas.

On pathologic examination, these tumours are large exophytic, heterogeneous, solid with cystic masses with areas of necrosis and haemorrhage. Due to marked heterogeneity on microscopic examination, anaplastic carcinoma of pancreas are subdivided into three basic histological subtypes : spindle cell carcinoma, pleomorphic carcinoma and round cell carcinoma. In our case, the majority of cells are spindle shaped forming a sarcomatoid appearance.

Immunohistochemical staining is the key to determining the origin of tumour cells and distinguishing them from metastatic carcinoma, malignant melanoma, rhabdomyosarcoma, choriocarcinoma, anaplastic large cell lymphoma and epithelioid sarcoma. Anaplastic carcinoma of pancreas are epithelial in origin and are reactive to epithelial markers (CK 7, EMA or pancytokeratin)

Anaplastic carcinomas of pancreas tend to have an aggressive nature with rapid local and distant

spread. In our case, there was direct locoregional spread to the surrounding soft tissue, similar to that reported in the previous literature.<sup>3</sup> Tumours of body and tail are more likely to give pulmonary rather than hepatic metastasis. Our patient had hepatic metastasis from a tumour arising from tail of pancreas but no pulmonary lesions.

Irrespective of the type, anaplastic carcinomas of pancreas are associated with poorer survival when compared to invasive ductal adenocarcinoma. There are limited data available on treatment options for these tumours. Curative resection is usually not successful due to extensive disease at presentation and the aggressive nature of the disease with rapid recurrence.<sup>6, 7,8</sup> Patients tend to have a rapid deterioration of physical condition; as a result, they are not good candidates for chemotherapy.

### Conclusion

Due to rapid spread of the disease, no effective cure exists for anaplastic carcinoma of pancreas. It is very important to recognize this distinct entity because of the highly aggressive nature of this type of tumour.

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