

## Case Report

# Pancreatic tuberculosis mimicking cystic tumor of pancreas

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## Abstract

Isolated pancreatic tuberculosis is very rare, and it presents as a mass lesion and closely mimics pancreatic adenocarcinoma both clinically as well as on imaging. Further, pancreatic tuberculosis can also rarely mimic cystic tumor of the pancreas. We present an unusual case of pancreatic tuberculosis in a 42-year-old lady who presented with pain abdomen and had a cystic lesion with an enhancing mural nodule on computed tomography resembling a cystic tumor of the pancreas.

## Key words

Endoscopic ultrasound, necrosis, pancreas, tuberculosis

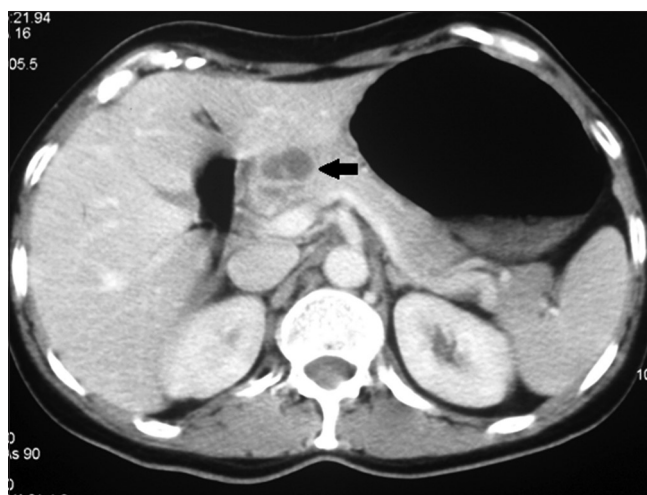
## Introduction

Isolated pancreatic tuberculosis is very rare and closely mimics pancreatic adenocarcinoma both clinically as well as on imaging.<sup>[1,2]</sup> However, the appearance of pancreatic tubercular lesions can be heterogeneous on imaging and can also rarely mimic cystic tumor of the pancreas.<sup>[3,4]</sup> We present an unusual case of pancreatic tuberculosis that mimicked a cystic tumor of the pancreas on computed tomography (CT) with an enhancing mural nodule.

## Case Report

A 42-year-old lady presented with abdominal pain and loss of weight. Her clinical examination as well as routine hematological and biochemical investigations were within normal limits. Contrast enhanced CT of the abdomen revealed a well-defined hypodense lesion in the head of the pancreas with an enhancing nodule [Figure 1; arrow]. A possibility of cystic tumor of the head of the pancreas was considered and

the patient was referred to us for endoscopic ultrasound (EUS). The EUS study showed a well-defined hypoechoic lesion in the head of the pancreas measuring 2.6 cm × 1.4 cm with few anechoic areas [Figure 2] and subsequently EUS guided fine needle aspiration (FNA) from the lesion was



**Figure 1:** Computed tomography of abdomen: A well-defined hypodense lesion (arrow) in the head of the pancreas with an enhancing nodule

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done using a 22 gauge needle (EchoTip Ultra EUS Needle; Cook Medical, Winston-Salem, NC, USA) with continuous suction [Figure 3]. The mediastinal evaluation also revealed a presence of 1.5 cm subcarinal lymph node with well-defined borders and heterogeneous echotexture and this was also sampled [Figure 4]. The cytological examination of the aspirate from both the sites revealed noncaseating necrosis and epithelioid granulomas [Figure 5]. The patient was started on four drugs anti-tubercular treatment and her symptoms improved with the treatment.

## Discussion

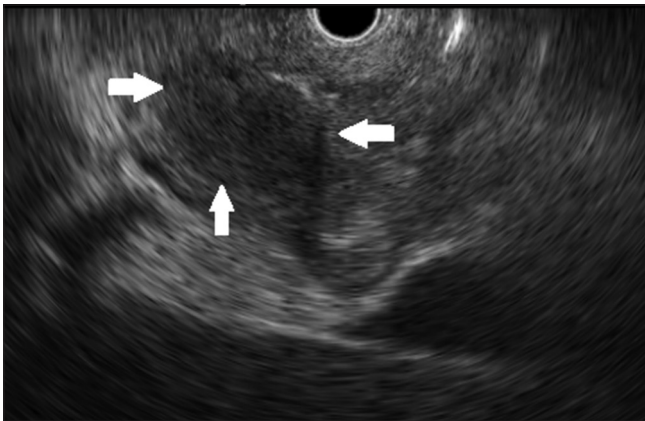
Pancreatic tuberculosis is a rare disease and isolated pancreatic tuberculosis is even rarer.<sup>[1-10]</sup> It usually involves the head and uncinate process of the pancreas and the clinical and imaging features of pancreatic tuberculosis masquerade as pancreatic cancer.<sup>[1-10]</sup> Both diseases may also have surrounding lymph nodal enlargement. However, as the necrosis in tuberculosis can be variable, the appearance of pancreatic tubercular lesions can be heterogeneous on imaging and can also mimic cystic tumor of the pancreas.<sup>[3,4]</sup> The cystic areas on imaging probably represent areas of extensive necrosis that

have liquefied.<sup>[3,4]</sup> Moreover, the remaining nonnecrosed inflammatory parenchyma can give an appearance of enhancing mural nodule as noted in our case.

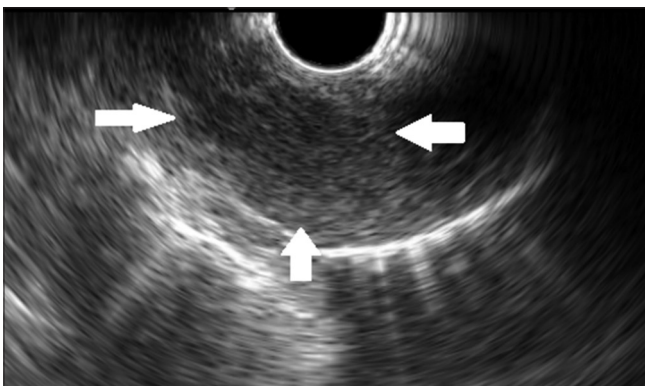
Tuberculosis is a systemic disease with the possibility of involvement of multiple organs and lymph nodes. Using EUS, we have previously shown that extrapancreatic involvement by tuberculosis is seen in up to one-third of patients with presumed isolated pancreatic tuberculosis and involvement of peripancreatic and celiac lymph nodes is the most common in them.<sup>[10]</sup> We found that mediastinal lymph nodal involvement was seen in 13% of patients with presumed isolated pancreatic tuberculosis as was also seen in the index case.<sup>[10]</sup>

## Conclusion

Pancreatic tuberculosis should be considered in differential diagnosis of pancreatic masses including the cystic masses and EUS-guided FNA can help in arriving at a correct diagnosis.



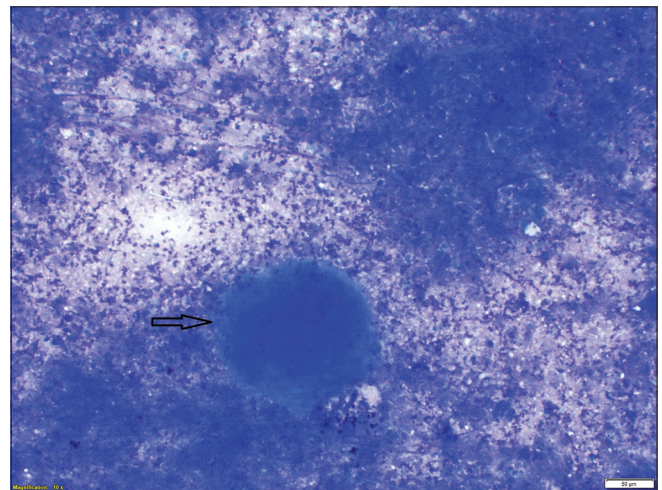
**Figure 2:** Endoscopic ultrasound: Well-defined hypoechoic lesion in the head of the pancreas (arrows)



**Figure 4:** Endoscopic ultrasound: Subcarinal lymph node of 1.5 cm size with well-defined borders and heterogeneous echotexture (arrows)



**Figure 3:** Endoscopic ultrasound-guided fine needle aspiration



**Figure 5:** Microphotograph showing extensive necrosis and epithelioid granuloma (arrow) (May-Grunwald-Giemsa stain)

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## Conflicts of interest

There are no conflicts of interest.

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