Pancreatic tuberculosis mimicking cystic tumor of pancreas

Surinder Singh Rana, Rajesh Gupta¹, Rajeev Ranjan², Radhika Srinivasan², Deepak Kumar Bhasin

Departments of Gastroenterology, ¹Surgery and ²Cytology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

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.^[1,2] However, the appearance of pancreatic tubercular lesions can be heterogeneous on imaging and can also rarely mimic cystic tumor of the pancreas.^[3,4] 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

Address for correspondence:

Dr. Surinder Singh Rana, Department of Gastroenterology, Postgraduate Institute of Medical Education and Research, Chandigarh - 160 012, India. E-mail: drsurinderrana@yahoo.co.in

Access this article online			
	Quick Response Code		
Website: www.jdeonline.in			
DOI: 10.4103/0976-5042.180098			

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 \times 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

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Rana SS, Gupta R, Ranjan R, Srinivasan R, Bhasin DK. Pancreatic tuberculosis mimicking cystic tumor of pancreas. J Dig Endosc 2016;7:30-2.

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.^[1-10] It usually involves the head and uncinate process of the pancreas and the clinical and imaging features of pancreatic tuberculosis masquerade as pancreatic cancer.^[1-10] 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.^[3,4] The cystic areas on imaging probably represent areas of extensive necrosis that



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)

have liquefied.^[3,4] 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.^[10] 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.^[10]

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 3: Endoscopic ultrasound-guided fine needle aspiration



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

Financial support and sponsorship Nil.

Conflicts of interest

There are no conflicts of interest.

References

- Rana SS, Bhasin DK, Srinivasan R, Sampath S, Mittal BR, Singh K. Distinctive endoscopic ultrasound features of isolated pancreatic tuberculosis and requirements for biliary stenting. Clin Gastroenterol Hepatol 2012;10:323-5.
- Rana SS, Sharma V, Sampath S, Sharma R, Mittal BR, Bhasin DK. Vascular invasion does not discriminate between pancreatic tuberculosis and pancreatic malignancy: A case series. Ann Gastroenterol 2014;27:395-8.
- Bhatia V, Garg PK, Arora VK, Sharma R. Isolated pancreatic tuberculosis mimicking intraductal pancreatic mucinous tumor. Gastrointest Endosc 2008;68:610-1.

- 4. Cho SB. Pancreatic tuberculosis presenting with pancreatic cystic tumor: A case report and review of the literature. Korean J Gastroenterol 2009;53:324-8.
- 5. Sharma V, Chhabra P, Rana SS, Bhasin DK. Pancreatic tuberculosis: Look at the kidney! Dig Liver Dis 2015;47:e1.
- Rana SS, Chaudhary V, Gupta N, Sampath S, Mittal BR, Bhasin DK. Pancreatic tuberculosis presenting as an unusual head mass. Endoscopy 2013;45 Suppl 2:E317-8.
- Rana SS, Bhasin DK, Gupta N, Singh K. Pancreatic tuberculosis with common bile duct and pancreatic duct dilatation. Endoscopy 2011;43 Suppl 2:E282-3.
- Rana SS, Bhasin DK, Rao C, Singh K. Isolated pancreatic tuberculosis mimicking focal pancreatitis and causing segmental portal hypertension. JOP 2010;11:393-5.
- Weiss ES, Klein WM, Yeo CJ. Peripancreatic tuberculosis mimicking pancreatic neoplasia. J Gastrointest Surg 2005;9:254-62.
- Rana SS, Sharma V, Sharma R, Bhasin DK. Involvement of mediastinal/ intra-abdominal lymph nodes, spleen, liver and left adrenal in presumed isolated pancreatic tuberculosis: An endoscopic ultrasound study. J Dig Endosc 2015;6:15-8.

New features on the journal's website

Optimized content for mobile and hand-held devices

HTML pages have been optimized of mobile and other hand-held devices (such as iPad, Kindle, iPod) for faster browsing speed. Click on [Mobile Full text] from Table of Contents page.

This is simple HTML version for faster download on mobiles (if viewed on desktop, it will be automatically redirected to full HTML version)

E-Pub for hand-held devices

EPUB is an open e-book standard recommended by The International Digital Publishing Forum which is designed for reflowable content i.e. the text display can be optimized for a particular display device.

Click on [EPub] from Table of Contents page.

There are various e-Pub readers such as for Windows: Digital Editions, OS X: Calibre/Bookworm, iPhone/iPod Touch/iPad: Stanza, and Linux: Calibre/Bookworm.

E-Book for desktop

One can also see the entire issue as printed here in a 'flip book' version on desktops. Links are available from Current Issue as well as Archives pages. Click on ¹⁰ View as eBook