Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Gastroenterology

A Pseudotumoral Presentation of Pancreatic Tuberculosis: A Case Report

M. Haida[1*], Y. Chait[1], A. N'khaili[1], A. Ait Errami[1], S. Oubaha[2], Z. Samlani[1], K. Krati[1]

[1]Service of gastroenterology CHU Mohammed VI Marrakech, Morocco
[2]Laboratory of physiology, Faculty of medicine and pharmacy of Marrakech, Morocco

DOI: 10.36347/sjams.2021.v09i10.001 | **Received:** 10.08.2021 | **Accepted:** 16.09.2021 | **Published:** 02.10.2021

***Corresponding author:** M. Haida

Abstract **Case Report**

Pancreatic tuberculosis is very rare, but recently there has been an increase in the number of reports of pancreatic tuberculosis involvement. It closely mimics pancreatic cancer, and before the advent of better imaging modalities, it was often detected as a surprise histologic problem in patients resected for suspected pancreatic malignancy. The usual presentation includes abdominal pain, anorexia with loss of weight, jaundice which may be associated with cholestasis, fever and night sweats, a palpable abdominal mass and lymphadenopathy. Computed tomography (CT) of the abdomen is an important tool in the assessment of patients with pancreatic tuberculosis. This imaging gives valuable information on the size and nature of tuberculosis lesions as well as the presence of ascites and lymphadenopathy. However, there is no distinguishing feature that distinguishes it from pancreatic carcinoma. In this regard, we report a case of pancreatic tuberculosis in its pseudotumoral form, revealed during an etiological assessment of chronic abdominal pain in a 23-year-old girl who had type 1 diabetes on insulin for 5 years as ATCD. The diagnosis was confirmed by the demonstration of gigantocellular epithelioid granulomas centered by caseous necrosis on surgical biopsies of the pre-pancreatic peritoneum and lymphadenopathy. The outcome was clinically and radiologically favorable after initiation of anti-tuberculosis quadruple therapy.

Keywords: Pancreas; tuberculosis; diagnosis; treatment.

INTRODUCTION

Pancreatic tuberculosis is an extremely rare disease, even in countries where the disease is widespread. Diagnosis is often difficult because the clinical and radiological features can mimic pancreatic cancer, especially as the symptoms progress against a background of altered general condition [1, 2]. This diagnosis, difficult and often unrecognized, should be considered especially if the epidemiological context lends itself to it, in the presence of concomitant pulmonary involvement, or in the face of a history of tuberculosis. The excellent outcome after anti-tuberculosis treatment makes the early diagnosis of pancreatic tuberculosis imperative to avoid unnecessary surgical interventions. In this regard, we report the case of a young patient aged 22, diabetic on insulin and having a history of tuberculosis contagion, admitted to the gastroenterology and hepatology department of the Arrazi Hospital Center in Marrakech for an etiological assessment of abdominal pain. atypical chronic conditions evolving in a context of deterioration of the general condition, of which the imaging showed a pancreatic isthmic process associated with local lymphadenopathy, a biopsy under laparoscopy of the lymphadenopathy was carried out, the anatomopathological study of which was in favor of an epitheliogigantocellular granuloma with caseous necrosis, the patient was put on antibacillary treatment with good progress.

OBSERVATION

This is a 23-year-old patient with a history of the notion of tuberculosis contagion (Uncle followed for pulmonary tuberculosis put on treatment 4 months ago), without other particular pathological ATCDs, admitted to the department of gastroenterology and hepatology of the Arrazi Hospital Center in Marrakech for etiological assessment of atypical chronic abdominal pain, progressive onset for 3 months at the epigastric and around the umbilicus level, intermittent, of moderate intensity, fixed without particular irradiation, unrelated to the food, without particular analgesic position, Without other associated digestives or extra digestives manifestations. All of this evolving in a context of feverish nocturnal sensation, and deterioration of the general condition (asthenia,

anorexia, marked but not quantified weight loss). An abdominal CT scan with PDC injection was performed (Figure 1) showing a lesion of the pancreatic isthmus of a multiloculated cystic nature measuring 54*40*40mm, well limited, with partitions and thick walls associated with coeliomenteric lymphadenopathies measuring 16*9 mm for the more voluminous. The patient subsequently underwent a diagnostic laparoscopy with biopsies of the lymphadenopathy, the pathological study of which was in favor of an epitheliogigantocellular granuloma with caseous necrosis. The systematic assessment including a chest x-ray, the search for BK in sputum and urine was negative. Antibacillary treatment was started with good clinical and radiological progress, of which the CT scan performed 6 months later revealed complete resolution of the pancreatic lesion.

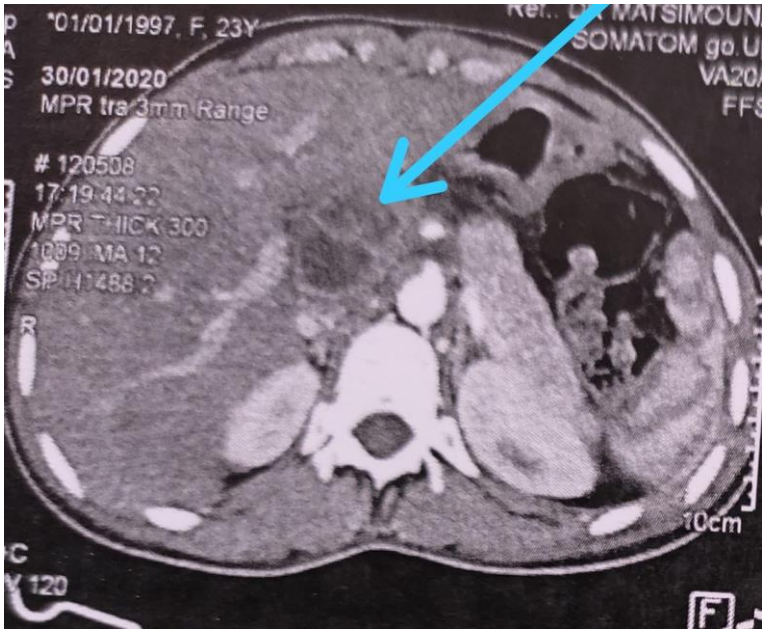

Figure 1: lesion of the pancreatic isthmus of a multiloculated cystic nature measuring 54*40*40mm, well limited, with partitions and thick walls associated with coeliomenteric lymphadenopathies

DISCUSSION

Pancreatic tuberculosis is a rare disease, even in countries where the disease is widespread [1]. It was first studied by Harles in 1912 and most medical research articles on this rare disease are limited to small series of cases or case reports [2]. Pancreatic tuberculosis usually affects young adults and is seen equally in men and women [2, 3]. It is most often associated with immunosuppression or miliary tuberculosis [4, 5]. The pathogenesis of isolated pancreatic tuberculosis remains poorly understood [6]. It can produce a variety of clinical presentations and most of the reported clinical features of this disease are non-specific [7]. Feng Xia et al., suggested the following characteristics: "i) occurs mainly in young people, especially female; ii) have a history of tuberculosis, or come from an area endemic for active tuberculosis; iii) often present with epigastric pain, fever and weight loss; iii) ultrasound and computed tomography show a pancreatic mass and peripancreatic nodules, some with focal calcification [8]". It is no surprise that the clinical feature of pancreatic localization of tuberculosis mimics pancreatic neoplasms. Indeed, symptoms such as abdominal pain, anorexia, weight loss, jaundice and pancreatic masses are suggestive of malignancy and give rise to strong suspicions of pancreatic cancer [2,9]. Thus, patients with such complaints should be meticulously investigated in order to avoid unnecessary pancreatic resection and the risks attributed. Ultrasound imaging of the pancreas or CT, which is often used for initial investigations, has shown that pancreatic tuberculosis can mimic pancreatic cancer [10, 11]. Ultrasound usually shows focal hypo echoic lesions or cystic lesions of the pancreas [12]. For CT results, they include irregular edges or diffuse enlargement of the pancreas, hypodense lesions, and enlarged peripancreatic lymph nodes [13–14]. The pancreatic mass presents as a single tissue process in 62.5% of cases and usually shows a heterogeneous appearance. It is often located in the head (56%) and is associated with peripancreatic lymphadenopathy in 75% of cases [13-15]. Magnetic resonance imaging has sometimes been used in the assessment of pancreatic tuberculosis. Magnetic resonance cholangiopancreatography may show dilation of the bile ducts and pancreatic ducts due to obstruction by the mass of the pancreatic head [16]. On T1-weighted images, lesions may be hypointense, and on T2-weighted sequences, they may be hyperintense [17, 15]. The lesions can be multi-nodular, the images can reveal an enhancement of the margin [17, 18]. Sometimes diffuse pancreatic enlargement, narrowing of the pancreatic duct and the presence of

peripancreatic lymphadenopathy may be noted. Invasive diagnostic techniques such as radio-guided percutaneous biopsy and surgical biopsy are more reliable and definitive unlike non-invasive techniques. In fact, tissue obtained from the biopsy can be evaluated for pathological and microbiological examination [19,20] Histologically, the presence of caseous granulomatous inflammation and positive staining for acid-fast bacilli suggest tuberculosis. A typical epithelioid and gigantocellular granuloma is found in 60% of cases, rarely caseous necrosis is observed [21, 22]. Microbiological examination also serves to confirm the diagnosis and relies mainly on cultures of mycobacteria, which take up to 6 weeks to develop [23]. The use of TB-PCR for diagnosis has not been well studied, but when this test was used, positive results were shown in 43-80% of patients [17, 24] Once the diagnosis is made, the management of pancreatic tuberculosis is based on anti-tuberculosis therapy. This treatment includes combination chemotherapy for tuberculosis (rifampicin, isoniazid, pyrazinamide and ethambutol) and is generally recommended between 6 and 12 months [25]. Guidelines for Directly Observed Therapy. The short course program (DOTS) recommends only six months of therapy, even for severe forms of tuberculosis [25, 26]. Response to treatment is generally predictable and complete with clinical and radiological improvement. Therefore, a longer duration of treatment is unnecessary as it leads to higher costs and may expose patients to more side effects [25]. Recurrence of pancreatic tuberculosis is rarely described and surgery is performed for serious complications such as compressions, fistulas and hemorrhages [22, 23].

CONCLUSION

Unlike abdominal tuberculosis which is not rare, pancreatic tuberculosis is an extremely rare entity of difficult diagnosis by its clinical and radiological presentations resembling pancreatic neoplasia. More common in young people in an endemic area or in immunocompromised subjects, which makes it possible to perform a puncture-biopsy as a first step and to avoid a complex and unnecessary surgical intervention

RÉFÉRENCES

1. Bhatia, V., Garg, P. K., Arora, V. K., & Sharma, R. (2008). Isolated pancreatic tuberculosis mimicking intraductal pancreatic mucinous tumor. *Gastrointestinal endoscopy*, *68*(3), 610-611.
2. Chatterjee, S., Schmid, M. L., Anderson, K., & Oppong, K. W. (2012). Tuberculosis and the pancreas: a diagnostic challenge solved by endoscopic ultrasound. A case series. *J Gastrointestin Liver Dis*, *21*(1), 105-107.
3. Bhansali, S. K. (1977). Abdominal tuberculosis. Experiences with 300 cases. *The American journal of gastroenterology*, *67*(4), 324-337.
4. Miri, M. B., Safari, M. T., & Alizadeh, A. H. M. (2015). Pancreatic tuberculosis: an overview. *JOP. Journal of the Pancreas*, *16*(3), 232-238.
5. Rana, S. S., Sharma, V., Sharma, R., & Bhasin, D. K. (2015). Involvement of mediastinal/intra. abdominal lymph nodes, spleen, liver, and left adrenal in presumed isolated pancreatic tuberculosis: An endoscopic ultrasound study. *Journal of Digestive Endoscopy*, *6*(1), 15-18.
6. Falkowski, A. L., Graber, J., Haack, H. G., Tarr, P. E., & Rasch, H. (2013). Isolated pancreatic tuberculosis: a case report and radiological comparison with cystic pancreatic lesions. *Journal of radiology case reports*, *7*(1), 1.
7. Pandya, G., Dixit, R., Shelat, V., Dixit, K., Shah, N., & Shah, K. (2007). Obstructive jaundice: a manifestation of pancreatic tuberculosis. *Journal of the Indian Medical Association*, *105*(3), 133-136.
8. Xia, F., Poon, R. T. P., Wang, S. G., Bie, P., Huang, X. Q., & Dong, J. H. (2003). Tuberculosis of pancreas and peripancreatic lymph nodes in immunocompetent patients: experience from China. *World journal of gastroenterology: WJG*, *9*(6), 1361-1364.
9. Rana, S. S., Sharma, V., Sampath, S., Sharma, R., Mittal, B. R., & Bhasin, D. K. (2014). Vascular invasion does not discriminate between pancreatic tuberculosis and pancreatic malignancy: a case series. *Annals of Gastroenterology: Quarterly Publication of the Hellenic Society of Gastroenterology*, *27*(4), 395-398
10. Lee, W. K., Van Tonder, F., Tartaglia, C. J., Dagia, C., Cazzato, R. L., Duddalwar, V. A., & Chang, S. D. (2012). CT appearances of abdominal tuberculosis. *Clinical radiology*, *67*(6), 596-604.
11. Wu, C. S., Wang, S. H., & Kuo, T. T. (1994). Pancreatic tuberculosis mimicking pancreatic head carcinoma: a case report and review of the literature. *Infection*, *22*(4), 287-289.
12. Morris, D. L., Wilkinson, L. S., & Al Mokhtar, N. (1993). Case report: emphysematous tuberculous pancreatitis diagnosis by ultrasound and computed tomography. *Clinical radiology*, *48*(4), 286-287.
13. Rezeig, M. A., Fashir, B. M., Al-Suhaibani, H., & Al-Fadda, M. (1998). Pancreatic tuberculosis mimicking pancreatic carcinoma: four case reports and review of the literature. *Digestive diseases and sciences*, *43*(2), 329-331.
14. Weiss, E. S., Klein, W. M., & Yeo, C. J. (2005). Peripancreatic tuberculosis mimicking pancreatic neoplasia. *Journal of gastrointestinal surgery*, *9*(2), 254-262.
15. Nagar, A. M., Raut, A. A., Morani, A. C., Sanghvi, D. A., Desai, C. S., & Thapar, V. B. (2009). Pancreatic tuberculosis: a clinical and imaging review of 32 cases. *Journal of computer assisted tomography*, *33*(1), 136-141.
16. Sportes, A., Kpossou, R., & Bernardin, S. (2013). Isolated pancreatic tuberculosis mimicking inoperable pancreatic cancer: A diagnostic

challenge resolved by endoscopic ultrasound-guided fine-needle aspiration. *Canadian Journal of Gastroenterology*, *27*(8), 445-447.

17. Kim, J. B., Lee, S. S., Kim, S. H., Byun, J. H., Park, D. H., Lee, T. Y., ... & Kim, M. H. (2014). Peripancreatic tuberculous lymphadenopathy masquerading as pancreatic malignancy: A single-center experience. *Journal of gastroenterology and hepatology*, *29*(2), 409-416.
18. Cherian, J. V., Somasundaram, A., Ponnusamy, R. P., & Venkataraman, J. (2007). Peripancreatic tuberculous lymphadenopathy. An impostor posing diagnostic difficulty. *JOP*, *8*(3), 326-329.
19. Yavuz, A., Buluş, H., Aydin, A., & Coşkun, A. (2012). Pancreatic tuberculosis mimicking inoperable pancreatic cancer. *The Turkish journal of gastroenterology: the official journal of Turkish Society of Gastroenterology*, *23*(1), 95-97.
20. Ozkan, F., Bulbuloglu, E., Inci, M. F., Sayar, H., Kahraman, H., & Yuksel, M. (2013). Isolated pancreatic tuberculosis mimicking malignancy and causing obstructive jaundice. *Journal of gastrointestinal cancer*, *44*(1), 118-120.
21. Evans, J. D., Hamanaka, Y., Olliff, S. P., & Neoptolemos, J. P. (2000). Tuberculosis of the pancreas presenting as metastatic pancreatic carcinoma. *Digestive surgery*, *17*(2), 183-187.
22. Veerabadran, P., Sasnur, P., Subramanian, S., & Marappagounder, S. (2007). Pancreatic tuberculosis-abdominal tuberculosis presenting as pancreatic abscesses and colonic perforation. *World Journal of Gastroenterology: WJG*, *13*(3), 478-479.
23. Kim, J. B., Lee, S. S., Kim, S. H., Byun, J. H., Park, D. H., Lee, T. Y., ... & Kim, M. H. (2014). Peripancreatic tuberculous lymphadenopathy masquerading as pancreatic malignancy: A single-center experience. *Journal of gastroenterology and hepatology*, *29*(2), 409-416.
24. Rao, R. N., Pandey, R., Rana, M. K., Rai, P., & Gupta, A. (2013). Pancreatic and peripancreatic tuberculosis presenting as hypoechoic mass and malignancy diagnosed by ultrasound-guided fine-needle aspiration cytology. *Journal of Cytology/Indian Academy of Cytologists*, *30*(2), 130-135.
25. World Health Organization. (2003). Standardized treatment regimens: treatment of tuberculosis: guidelines for national programmes Geneva, 3, 27–38.
26. World Health Organization. (2017). Guidelines for Treatment of Drug-Susceptible Tuberculosis and Patient Care.