

Pancreatic Tuberculosis (A Pancreatic Cancer Mimicker!)

47 yo male, came from Mondulkiry, Admitted at ED on 10/10

- **Chef Complain:** Epigastric pain
- **M.H:**
 - Epigastric pain for about **2 months** with **moderate fever** (no chill), getting worse after eating with no vomiting.
 - He present with **abdominal mass (epigastric)** → Diagnosis was made at Kampong Cham as **Pancreatic cyst** → Being Transferred to Calmette for the operation.
- **Past medical History:**
 - Hemoptysis 3 times in 1 year
 - Heavy smoking habit: 30 PY
 - No history of Diabetes, No history of Hypertension
 - No surgical past history
 - No traumatic past history
 - No family history

Clinical Examination

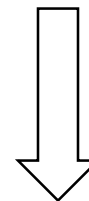
- **Vitals signs:** TA: 12/8cmHg, P: 88/mn, T: 37c, SaO2: 98%

- **Signs and Symptoms:**

- Feeling of fever but no chill (never put the temperature at home)
- Abdominal discomfort on the epigastric region
- Unintentional 10kg weight loss (54→45kg/an)
- Productive caught

Physical exam on admission:

- Palpable epigastric mass, with no appreciable lymphadenopathy
- Lung sound are clear
- Mild jaundice, No ascites



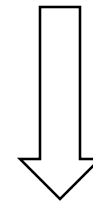
Intra abdominal tumor?

Other investigation

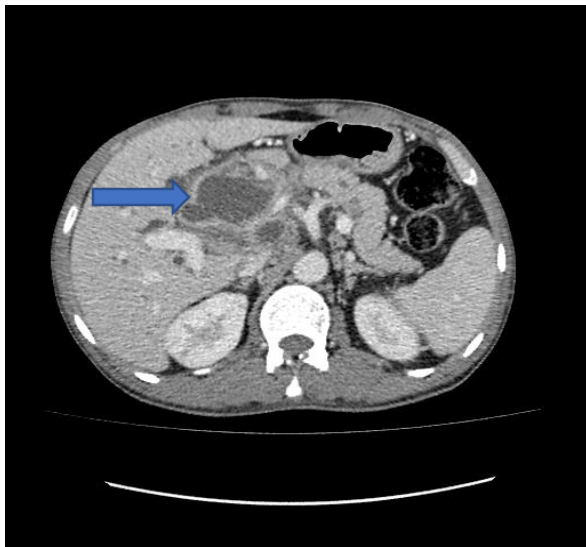
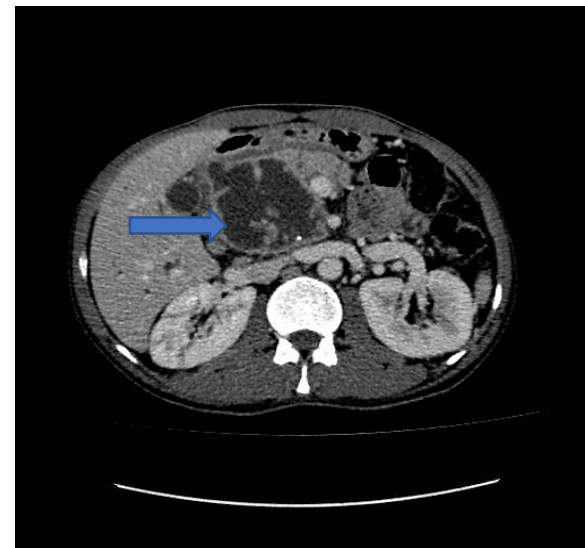
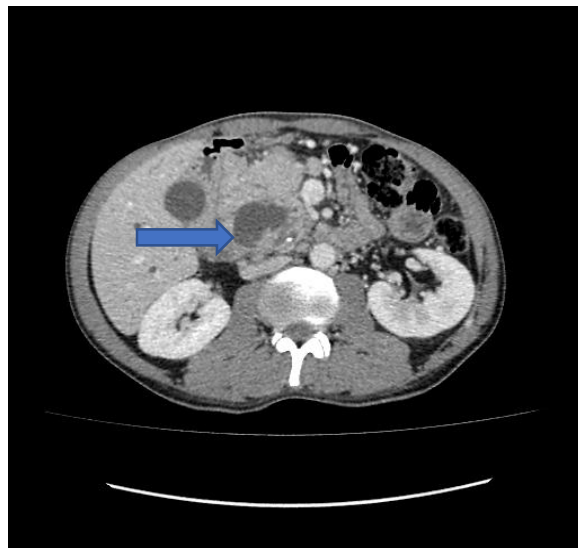
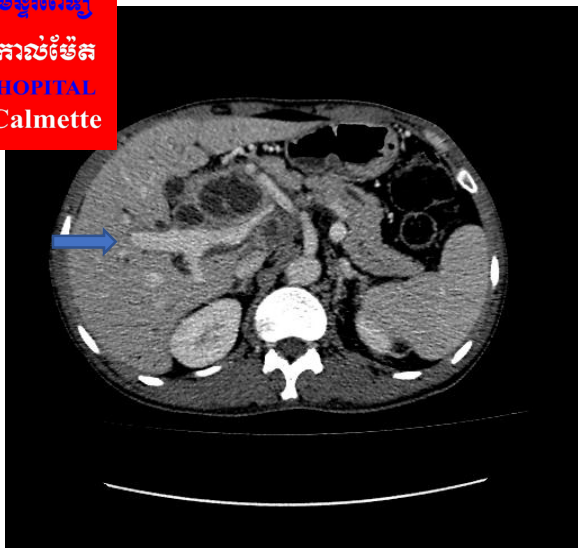
- **10/10:**

- Hb:113g/l, GB: 8,92giga/l, plaquette: 331giga/l
- TP: 88% , groupage: AB
- **Amylase:711U/l, Lipase: 280U/l**
- **ASAT: 73, ALAT: 61, Bili T: 23, Bili D: 20**
- Créatinine: 92 μ mol/l, Urée: 0,21g/l
- **ACE: 1,31ng/ml (<3,8ng/ml),**
- **CA-19-9: 3,96UI/ml (<34 UI/ml)**

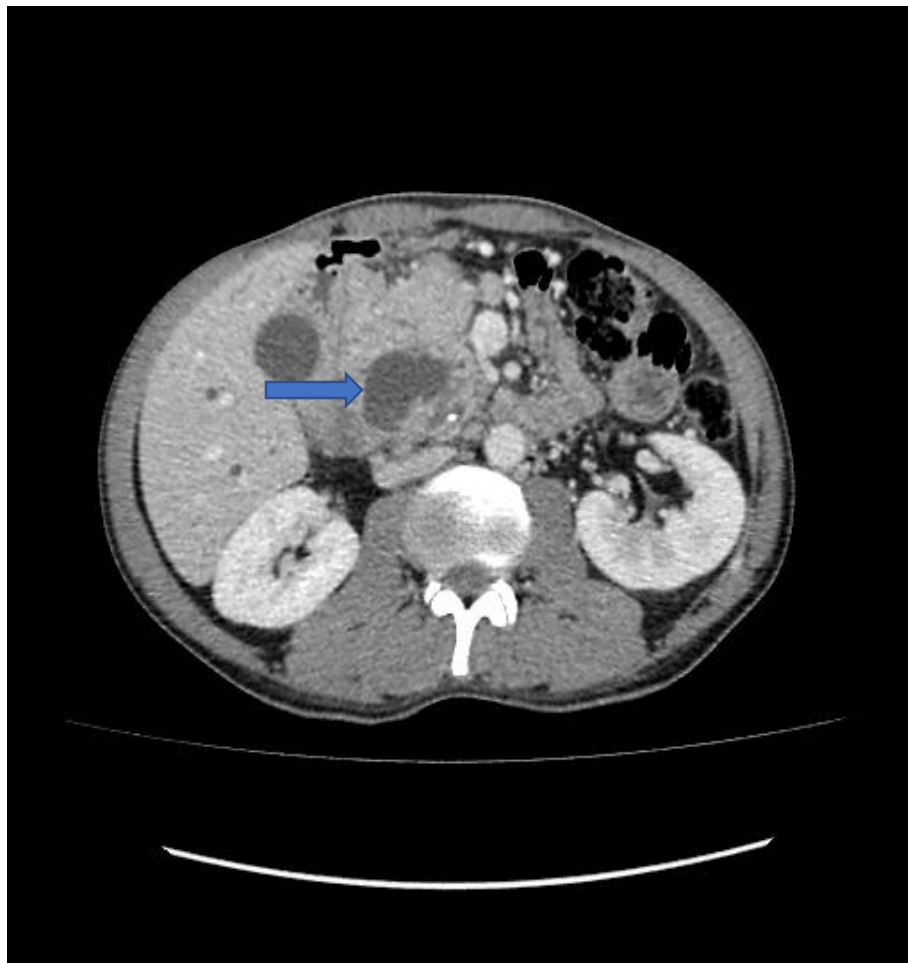
➤ **Echo abdo:** Suspicious of Pancreatic tumor BUT need to be confirmed by the CT Scann



The abdominal CT Scann was done on 11/10



1. Head of Pancreas cystic tumor. Malignancy should be think of
2. Multiples lymphadenopathies coelio-mesenteric and liver



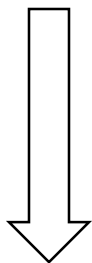
Head of Pancreas tumor

Treatment plan

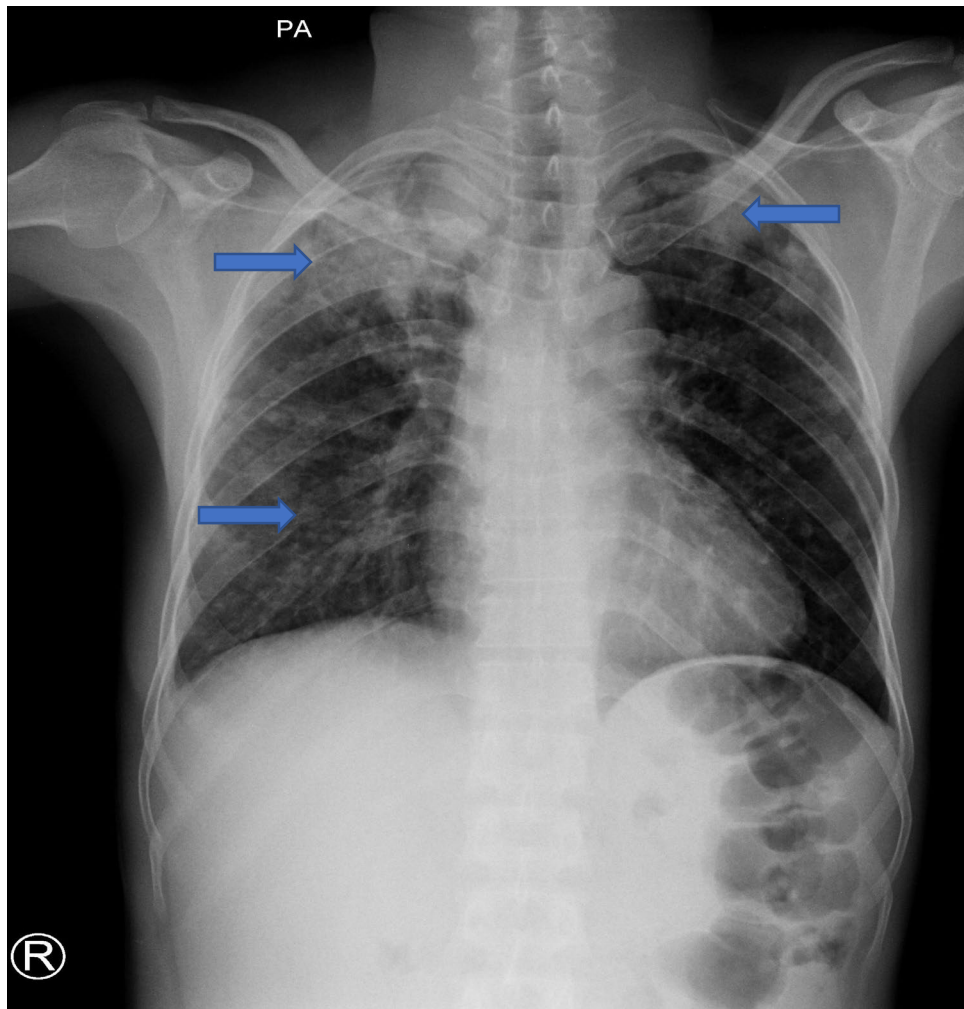
- Multidisciplinary meeting between Surgeons, Infectious Diseases, Radiologist and Anesthesiologist to discuss about this cases.
- The meeting then decided:
 - ➔ Indication: Operation
- Infectious Diseases and Anesthesiologist requested to do more test before the operation
 - Chest X-ray (History of prolong fever plus Chronic smoking)
 - Sputum for direct smear and culture
 - EKG plus Heart Ultrasound (for the pre-operation test)

- Heart Ultrasound: normal
- EKG: normal

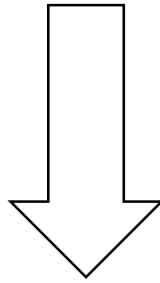
Chest X-ray on 12/10



patient had a right apical opacity with multiple pulmonary nodules



The patient was sent to the operation theater on 13/10



- Laparotomy**
- Biopsy was done on the head of the Pancreas**

Other Lab test result

➔ Sputum smear on (12/10) :

- Direct smear was negative

- Gene X-pert (sputum): MTB positive

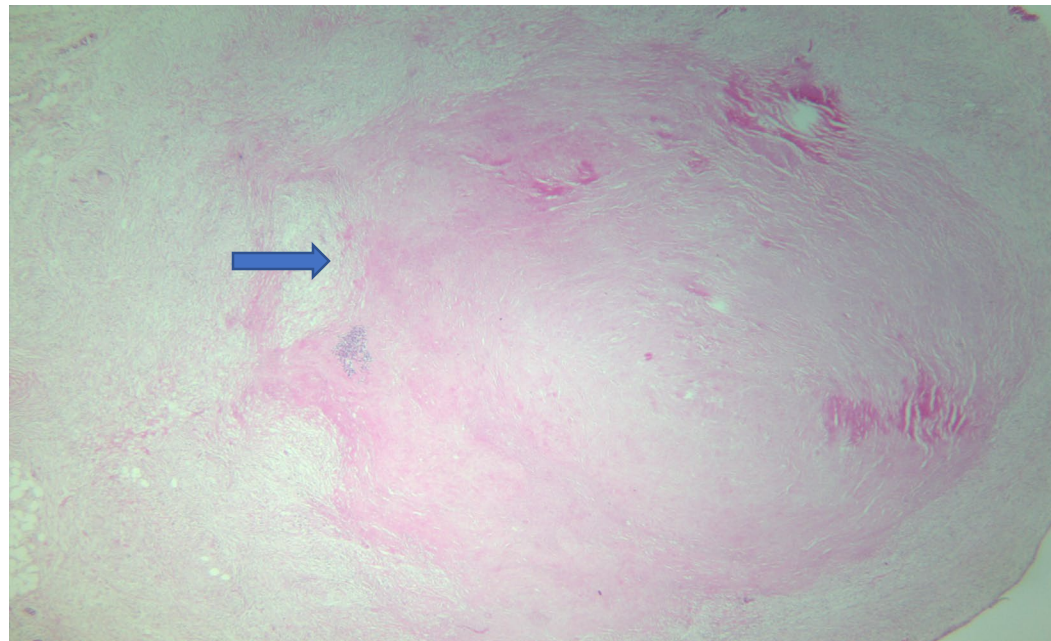
No Rif resistance detected

➔ HIV test was negative

➔ Sputum culture then became negative

•Anatomopathology result: le 18/10:

- Nodule from lymph node and pancreatic shows with **multiple caseating granulomas**
- No other structure to be thinking of pancreatic malignancy.



Our final diagnosis

➔ **Pancreatic Tuberculosis confirmed by:**

1. Sputum Gene X-pert (+)
2. The result of anatomo-pathology

Treatment regimens

- Anti TB: IREP: 3-0-0 PO in 2 moths then switch to IR: 3-0-0 (PO) in 4 other months
- Vitamin B1 B6 B12: 1-1-1 (PO)

Category1a (Adult) 2RHZE/4RH

Body Weight in Kg	Intensive Phase: 2months, daily RHZE (150mg+75mg+400mg+275mg)	Continuation Phase: 4months, daily RH(150mg+75mg)
30-39	2 tablets	2 tablets
40-54	3 tablets	3 tablets
55-70	4 tablets	4 tablets
>70	5 tablets	5 tablets
Dosage/kg/day	R=10mg H=5 mg Z=25 mg E=15 mg	

Patient return for the follow up (1 month later)

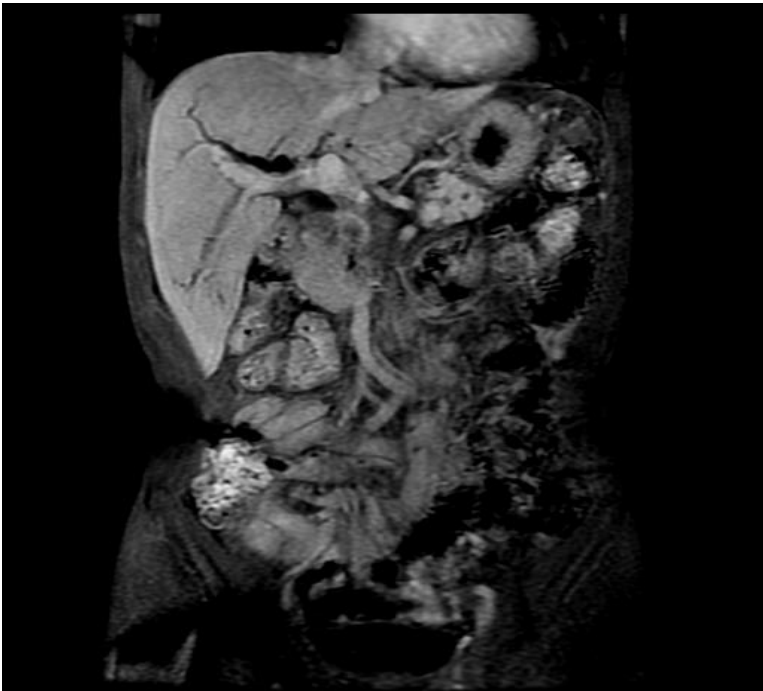
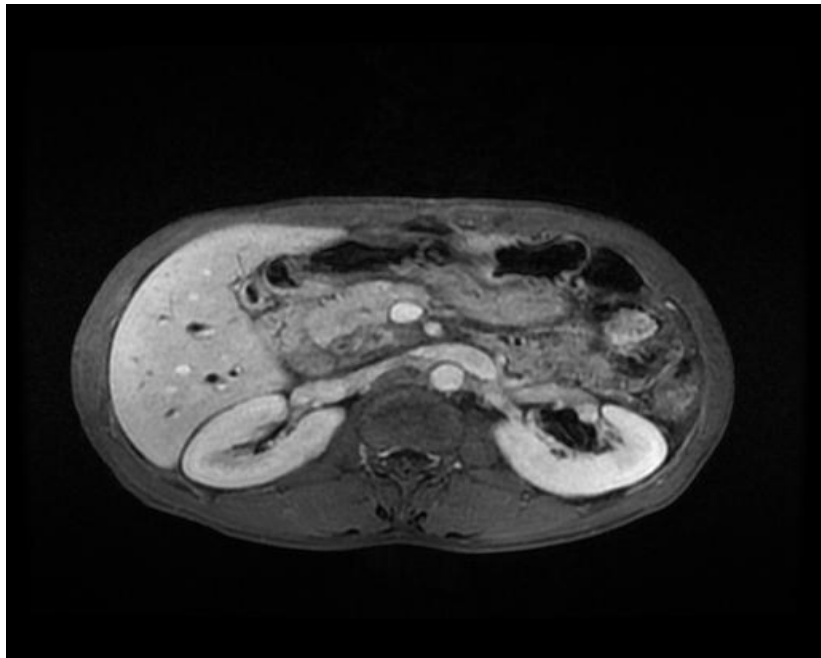
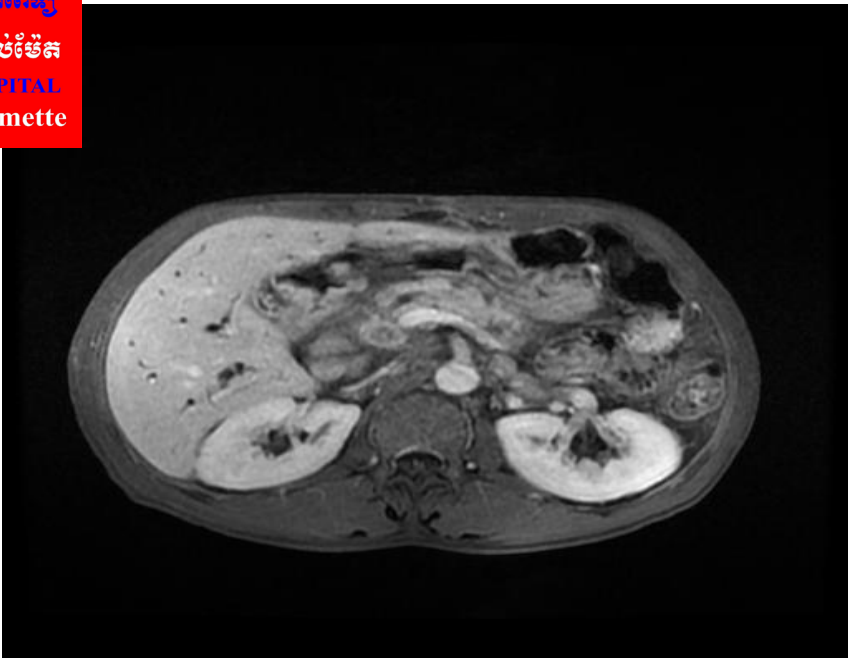
- **Clinic:**

- Clinically improved with gaining weigh 3kg in one month
- No more fever, no more hemoptysis.
- No jaundice

- **Other tests:**

- Biologic: normal
- Sputum: direct smear negative
- Chest X-Ray: looks better

Billi-IRM was done and shows: pancreatic mass has decreased significantly in size.



Literature Review



CAMBODIA

POPULATION: 16 MILLION



World Health Organization

WHO GLOBAL TB REPORT 2018

2017

52 000 FELL ILL WITH TB

30 000 men 22 000 females 6 600 children

34 238 TB cases notified



17 762 people not notified or not diagnosed

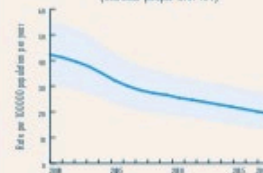
3 500 TB DEATHS



including 410 deaths among people with HIV

TB MORTALITY 2000-2017

(Excludes people with HIV)



TREATMENT

TB treatment coverage



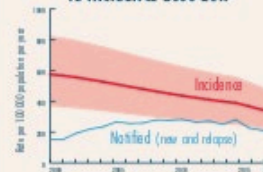
2025

90% End TB operational targets

Treatment success rate



TB INCIDENCE 2000-2017



DRUG-RESISTANT TB

1 200 people fell ill with drug-resistant TB

136 notified



143 notified and started on treatment

TB/HIV

1 300 people living with HIV fell ill with TB

748 notified



698 notified and on antiretroviral treatment

TB PREVENTIVE TREATMENT



21%

HIV-positive people (newly enrolled in care) on TB preventive treatment

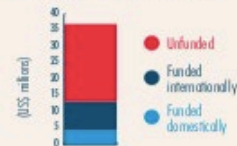


44%

Children (aged <5 years) household contacts of bacteriologically-confirmed TB cases on TB preventive treatment

TB FINANCING 2018

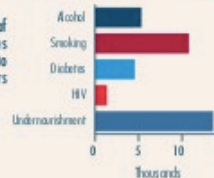
National TB budget USD 37 million



TB-SDG MONITORING FRAMEWORK

Out-of-pocket health expenditure (% of current health expenditure)	HIV prevalence (% of population aged 15-49 years)	Smoking prevalence (% of population aged ≥15 years)	Diabetes prevalence (% of population aged ≥18 years)	Alcohol use disorder, 12 month prevalence (% of population aged ≥15 years)
59%	0.6%	33.7% (M) 2% (F)	7.4% (M) 6.9% (F)	7.6% (M) 1.4% (F)

Number of TB cases attributable to 5 risk factors



Monitoring of the above indicators can be used to identify key influences on the TB epidemic at national level and inform the multisectoral actions required to end the TB epidemic.



CAS
CLINIQUE

La tuberculose pancréatique

A propos de deux cas

Omar EL MANSARI, Mohammed T. TAJDINE, Ilias MIKOU, Mohammed I. JANATI

Service de Chirurgie Viscérale et Vasculaire, Hôpital Militaire Mohammed V, Rabat, Maroc.

RÉSUMÉ

Nous rapportons deux cas de tuberculose pancréatique. Le premier malade se présentait avec des douleurs abdominales, un ictère cholestatique et un amaigrissement. L'échographie et la tomодensitométrie étaient en faveur d'une tumeur pancréatique. Chez la seconde malade, des douleurs abdominales sans ictère motivaient une tomодensitométrie abdominale qui mettait en évidence une masse pancréatique. Le diagnostic de tuberculose pancréatique était porté grâce à des biopsies péritonéales dans le premier cas et ganglionnaires dans le deuxième. Une dérivation bilio-digestive était réalisée chez les 2 malades. L'évolution était favorable chez le premier malade sous traitement anti-tuberculeux, tandis que la seconde malade décédait dans un tableau de choc septique. La tuberculose devrait être évoquée devant une masse pancréatique en pays d'endémie tuberculeuse et chez le sujet immunodéprimé. La biopsie écho ou scano-guidée peut conduire au diagnostic et éviter une laparotomie.

Conclusion

La TBP est une affection très rare qui prend le plus souvent le masque d'une tumeur pancréatique. Le diagnostic n'est posé le plus souvent qu'en per-opératoire. La tomодensitométrie abdominale est un examen essentiel, qui pourrait aider au diagnostic de TBP sur certains aspects très évocateurs, surtout en pays d'endémie tuberculeuse et chez les malades immuno-déficients. L'intérêt des biopsies percutanées ou des aspirations à l'aiguille fine, qui permettent parfois un diagnostic pré-opératoire, devrait être tempéré par le nombre non négligeable de faux négatifs et par le risque de dissémination tumorale.

Case Report

Pancreatic tuberculosis with splenic tuberculosis mimicking advanced pancreatic cancer with splenic metastasizes: a case report

YF Rong, WH Lou and DY Jin*

Address: Pancreatic Group, Department of General surgery, Zhongshan Hospital, Fudan University, Shanghai, 200032, PR China

Email: YF Rong - mcyryf@163.com; WH Lou - Louwenhui@yahoo.com.cn; DY Jin* - Jin.dayong@zs-hospital.sh.cn

* Corresponding author

Published: 12 August 2008

Cases Journal 2008, 1:84 doi:10.1186/1757-1626-1-84

This article is available from: <http://www.casesjournal.com/content/1/1/84>

© 2008 Rong et al; licensee BioMed Central Ltd.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 22 May 2008

Accepted: 12 August 2008

the involvement of pancreatic TB is rare. In 1944 Auerbach first reported TB mimicking pancreatic cancer [6]. He described 1656 autopsies of tuberculous patients and identified 297 cases of miliary TB.

The authors found between 1980 and 2002 that 50 cases of pancreatic TB had been reported. Thirteen of these cases were categorized as pancreatic

In conclusion, pancreatic TB is rare and the diagnosis is challenging. However if doctors are aware of its clinical features and conduct more diagnostic modalities including CT scan and ultrasound-guided FNA or laparoscopic biopsy, diagnosis of pancreatic tuberculosis without laparotomy is possible and the disease can be effectively treated with antituberculous drugs.

Once the tissue diagnosis has been made, the management of TB rest on the medical treatment. Medical management of pancreatic TB generally consists of isoniazid and rifampin, with pyrazinamide and ethambutol added

CANADIAN
RESPIRATORY JOURNAL

REVUE CANADIENNE DE PNEUMOLOGIE

JULY/AUGUST 2013 • VOLUME 20 • SUPPLEMENT A

Journal of the Canadian Thoracic Society
Journal de la Société canadienne de thoracologie

CANADIAN  THORACIC SOCIETY
SOCIÉTÉ CANADIENNE DE THORACOLOGIE

*Medical section of The Lung Association
La section médicale de l'Association pulmonaire*



Journal of the Canadian Critical Care Society
Journal de la Société canadienne de soins intensifs

Gastrointestinal

Gastrointestinal involvement usually occurs in the ileocecal, jejunoileal or anorectal area but has been described in the esophagus, stomach and duodenum. Hepatosplenic, biliary tract and **pancreatic TB are described but are comparatively rare.** Patients with ileocecal TB may present with clinical and radiographic features that are indistinguishable from those of Crohn's disease, such as chronic abdominal pain (up to 90%), constitutional symptoms and a right lower quadrant mass (25% to 50%).^{147,148}

Radiologic investigations for enteric TB can include barium assessment, CT scan and abdominal MRI studies. Radiographic features of enteric TB are nonspecific and difficult to differentiate from inflammatory bowel disease. Associated involvement of the peritoneum and mesenteric lymph nodes is more commonly seen in TB than in inflammatory bowel disease. It is important to assess for pulmonary involvement when considering the diagnosis of enteric TB, as up to 50% of patients with intestinal TB have evidence of active or inactive pulmonary TB on chest radiography.¹⁴⁹⁻¹⁵²

Pancreatic tuberculosis: a case report

U Jethwani*, G Singh, RS Mohil, V Kandwal, J Chouhan, R Saroha, N Bansal

Discussion

Isolated TB of the pancreas is rare even in countries with a high prevalence of TB². Bhansali et al. reported 300 abdominal TB cases over a 12-year-period, but found no pancreatic TB case³. The pancreas is biologically resistant to infection by *Mycobacterium tuberculosis*. Possible mechanisms of involvement of the pancreas are as follows⁴⁻⁶:

Conclusion

Pancreatic TB should be considered in differential diagnosis of patients presented with pancreatic masses, especially in areas where TB is endemic. High index of suspicion, CT/USG FNAB is extremely important to make the diagnosis of pancreatic TB. The majority of patients respond well

Licensee OA Publishing London 2013. Creative Commons Attribution Licence (CC-BY)

FOR CITATION PURPOSES: Jethwani U, Singh G, Mohil RS, Kandwal V, Chouhan J, Saroha R, et al. Pancreatic tuberculosis: a Case report. OA Case Reports 2013 Jun 05;2(5):41.

CASE REPORT

JIACM 2014; 15(1): 62-4

Pancreatic tuberculosis in an immunocompetent young female

S Prasad, R Manocha**, SK Mahavar***, R Kumar****, B Gupta*****, A Sharma****

Journal, Indian Academy of Clinical Medicine • Vol. 15, No. 1 • January-March, 2014

1. Mostly occurs in young people, especially females;
2. Have a past history of TB, or come from an endemic zone of active tuberculosis;
3. Often present with epigastric pain, fever, and weight loss;
4. Ultrasound and CT scan show pancreatic mass and peripancreatic nodules, some with focal calcification⁷.

In conclusion, pancreatic TB is rare and the diagnosis is challenging. However if doctors are aware of its clinical features and conduct more diagnostic modalities including CT scan and ultrasound-guided FNA or laparoscopic biopsy, diagnosis of pancreatic tuberculosis without laparotomy is possible and the disease can be effectively treated with antituberculous drugs.

Conclusion

- Pancreatic tuberculosis is a rare manifestation, which can occur in isolation or with disseminated disease. Symptoms are often nonspecific and clinical presentation may mimic pancreatic malignancy.
- The diagnosis of this disease could not be made without our good quality laboratory both anatomo-pathology and microbiology.
- The awareness of the physicians about using the lab and how to collect the good specimens are also important part of laboratory.
- A good team work spirit in the work place is the key to success for helping improving the patient's health care.

Take home message

A good quality lab is very
important!!

**But without good quality specimens sending
to them, there will be nothing at the end!!**

- 1. Increase Lab quality and capacity**
- 2. Increase Physicians knowledge (specimens collection,
sending specimen to the Lab)**

Team work

ប៊ុនពេទ្យ
កាល់ម៉ែត
HOPITAL
Calmette



Thank you for your attention

Discussion

