

A pseudocyst of the pancreas reveled by an abdominal aortic aneurysm

Papa Salmane Ba, Papa Adama Dieng, Papa Amath Diagne, Souleymane Diatta, Magaye Gaye, Momar Sokhna Diop, Ndèye Fatou Sow, Amadou Gabriel Ciss, Assane Ndiaye, Mouhamadou Ndiaye.

Thoracic and Cardiovascular Center, FANN Hospital Center, Dakar, Senegal

***Corresponding author**

Dr Papa Salmane Ba

Email: mansalb@yahoo.fr

Abstract: We report a case of abdominal aortic aneurysm associated with a pseudocyst of the pancreas. The Abdominal computed tomography (CT) concluded with an aneurysm of the abdominal aorta, fusiform shaped presenting an important parietal thrombus, associated with a cyst mass with thick walls, in close contact with the pancreas tail and the jejunum. He had had a Dacron aorto-biiliac bypass prosthesis and drainage of the pseudocyst. Outcome was good.

Keywords: aneurysm, abdominal aorta, pseudo cyst pancreas

INTRODUCTION

Clinical presentation of aneurysm of the abdominal aorta is often atypical. The classic sign with fever, abdominal pain and abdominal beating mass is only present in half of cases [1]. The location of hydatid cyst in the pancreas is very rare, even in countries with high endemicity (under 1%), which often poses diagnostic difficulties [2]. Association between abdominal aortic aneurysm with a pancreatic pseudocyst has not been found in the literature. We report a rare case of a patient operated for infra renal abdominal aortic aneurysm (IAAA) which revealed a pseudo pancreatic cyst.

CASE REPORT

A 65 years retired taxi driver was admitted in our clinical hospital. She has hypertension and active smoking but was not a chronic alcoholic. He was admitted for the suspicion of ruptured infra renal abdominal aortic aneurysm. The clinical history evolve one month before admission made by atypically abdominal pain, lumbar radiation, combined with a recent constipation and swelling of the left flank. He had not been hospitalized before for acute pancreatitis. Clinical examination showed no evidence of anemia, blood pressure 130/80 mmHg with a pulse to 112 beats per minute, respiratory rate 20 breaths per minute and a temperature 37,4°C, pulsing swelling in the left flank. Abdominal computed tomography (CT) showed an infra-renal abdominal aneurysm of the aorta, fusiform shape with significant parietal thrombus and iliac extension especially in right side, measuring 12 cm high and 7.8 cm in his maximum diameter. Abdominal CT

showed also a cystic mass with thick walls, measuring 14 x 11 cm in close contact with the tail of the pancreas. The cyst was contiguous with the aortic aneurysm without sign of communication (fistula) (Figures 1, 2, 3). We noted leukocytosis $12 \times 10^3/\text{mm}^3$, a hemoglobin to 12.7g/dl, platelets count at $293 \times 10^3/\text{mm}^3$, serum sodium was 126 mEq/l, serum potassium was 4 mEq/l, creatinine 60 mg/l, serum glucose was 1.25 g/l. Total bilirubin was 25.6 mg/l, free bilirubin 12.7 mg/l, conjugated bilirubin 12.9 mg/l. Alanine aminotransferase (ALT) were 17 IU/L, Aspartate aminotransferase (AST) 30 IU/L. The amylase was increased to 137 IU/L and lipase was normal in 36 IU/L. HIV, Hepatitis B, C and syphilis serologic tests were negatives.

Exploration by transperitoneal laparotomy showed not murky fluid in the abdomen, a cyst of the pancreatic tail, an unruptured aortic aneurysm, extended to the iliac arteries. Aspiration of the cyst followed by placement of a drainage catheter (16-gauge Redon catheter) exteriorized into the anterior abdominal wall was done. Cystic content was brown colored fluid, odorless. The aneurysm was treated with in situ aortobiilac prosthetic graft replacement using a bifurcated Dacron tube 16 x 8 mm after excision of the aneurysm. Removal of cystic drain was made after 10 days. The patient was discharged from the hospital 14 days after surgery. No neoplasia was identified in a specimen of the pseudocyst wall on the pathology test. After 8 months, the abdominal CT scan (Figure 4) has not revealed a recurrence of the pseudo cyst or aneurysm.

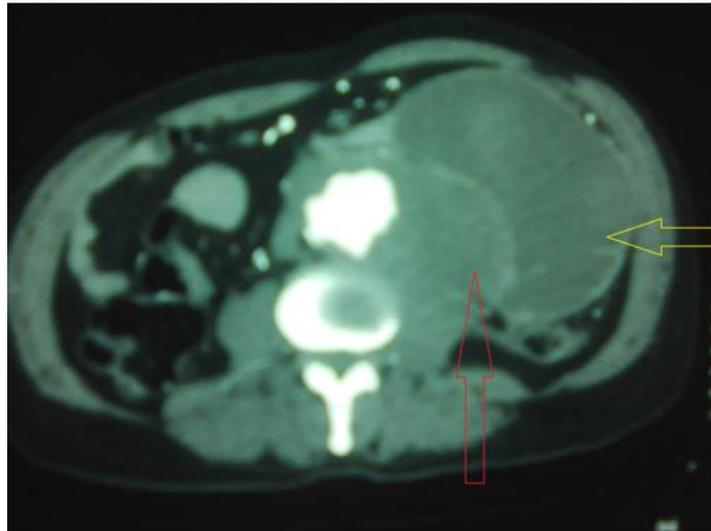


Fig-1: Pseudocyst (yellow arrow), aneurysm (red arrow)

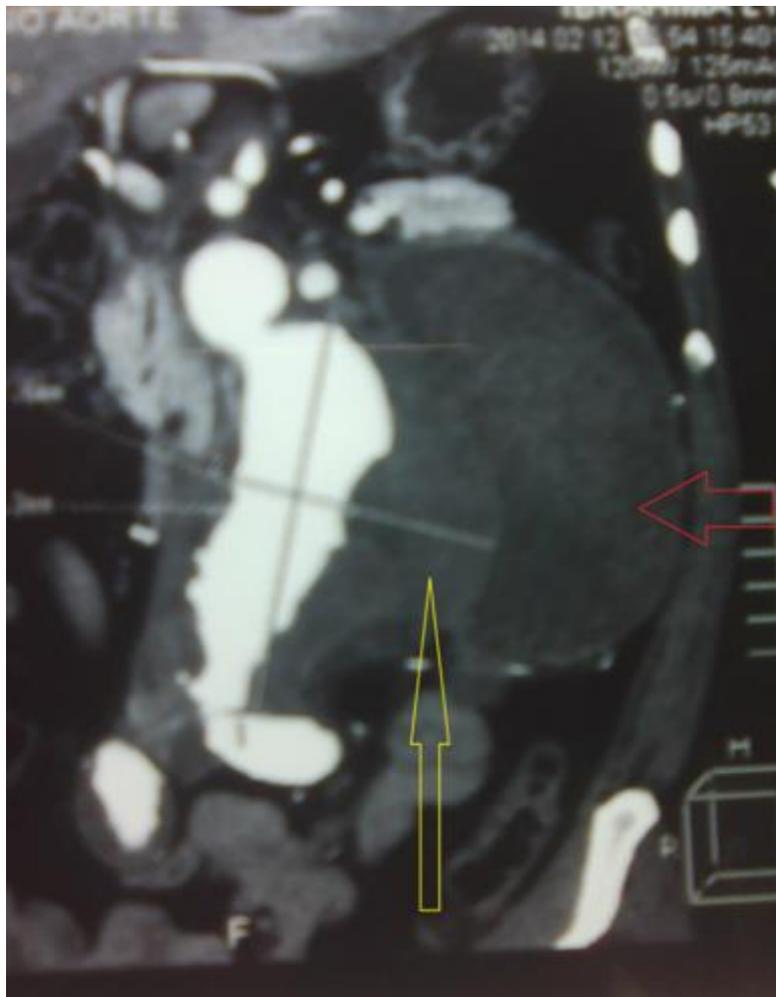


Fig-2: Pseudocyst (red arrow), aneurysm (yellow arrow)

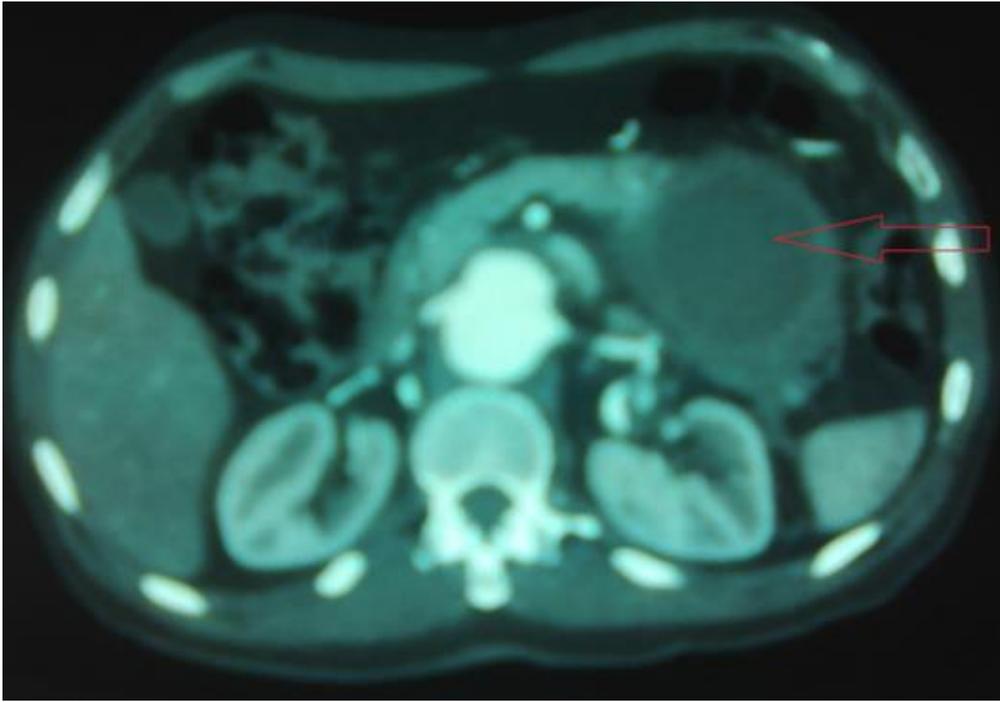


Fig-3: pseudocyst of pancreatic tail (red arrow)

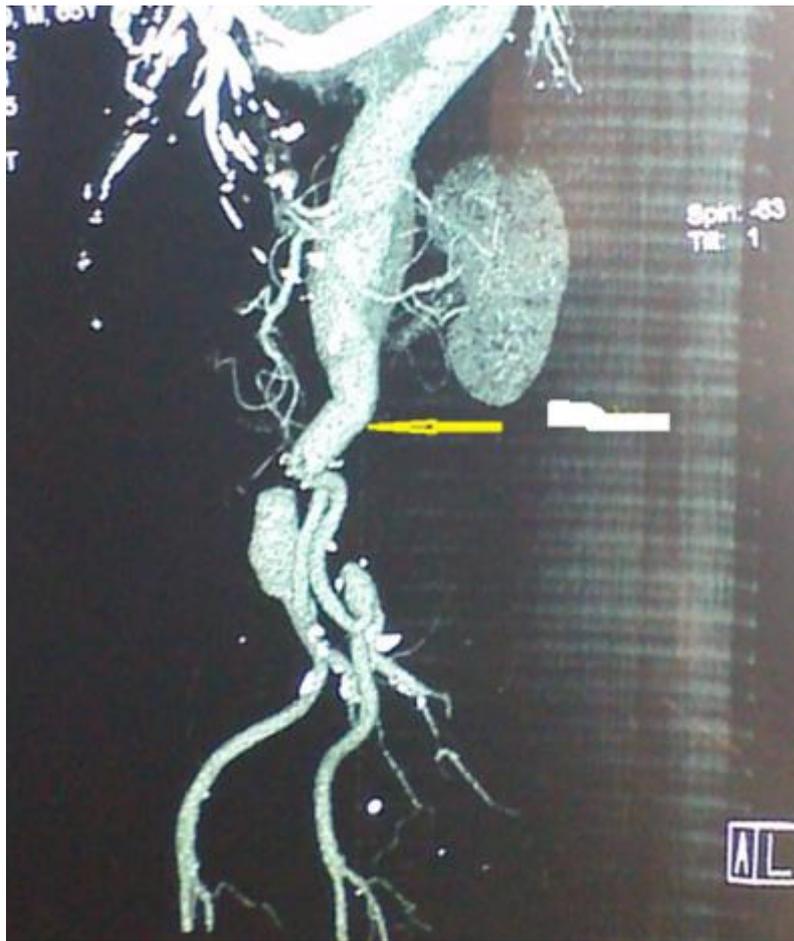


Fig- 4: Aorto biliac Dacron tube (yellow arrow)

DISCUSSION

The clinical presentation of aneurysms of the abdominal aorta is often misleading. Many and varied symptoms are described [1]. However, very few cases of giant pancreatic pseudocysts, those measuring 10 cm or more in major diameter, have been reported in the literature [3]. The association with a pseudocyst of pancreas, miming an abdominal aortic aneurysm has not been described in the literature. The location of the pancreatic pseudocyst is extremely important, both in symptomatology and management [3]. The symptomatology of our patient is not usual. We think that the pseudocyst is a complication of the aneurysm that is probably mycotic. Computed tomography, magnetic resonance imaging and endoscopic ultrasound recognize the cystic lesion [4]. In our patient, computer tomography showed also an infra-renal abdominal aneurysm. Various treatment options are available for the management of pancreatic pseudocyst, such as open surgery, percutaneous drainage, laparoscopic and endoscopic cystogastrostomy [3, 5, 6]. The aforementioned techniques were not doing for our patient because the cyst was to close contact with the aneurysm. We think that drainage is minimally invasive with quick post-procedure recovery and consequently shorter hospital stay. Our patient was discharged home after 10 days post-procedure and the abdominal CT has not revealed a recurrence of the pseudocyst. This technique has been adopted by some teams [6, 7, 8]. The basic goal of surgical repair is the exclusion of the aortic aneurysm from the systemic circulation with preservation of blood flow to the pelvis and legs via an implanted new vascular conduit. Endovascular aneurysm repair-minimally invasive technique continues to benefit more patients and it will become more applicable and durable with technical improvements [9]. We used a bifurcated Dacron tube 16 x 8 mm because endovascular aneurysm repair is not practice in our country.

CONCLUSION

Pseudo pancreatic cyst associated with an infrarenal abdominal aortic aneurysm is rare and this observation highlights the importance of quickly consider this diagnosis in a patient imaging signs of ruptured abdominal aortic aneurysm without clinical evidence. Open surgery remains the easiest way in our country.

REFERENCES

1. Péron J, Bouledrak K, Grouet A, Gerinière L, Souquet PJ ; Pleurésie exsudative révélant un anévrisme infectieux de l'aorte abdominale. *Revue des maladies respiratoires* 2010; 27(1):67-71.
2. Chammakhi-Jemli C, Mekaouer S, Miaoui A, Daghfous A, Mzabi H, Cherif A ; MH Daghfous. Pancréatite aiguë révélatrice d'un

- kyste hydatique du pancréas. *Journal de radiologie juillet-août 2010*; 91(7-8):797-799.
3. Grace C Wang, Subhasis Misra; A giant pancreatic pseudocyst treated by cystogastrostomy. *BMJ Case Rep*; 24 Mars 2015. doi:10.1136/bcr-2014-207271
4. Vivek Kadiyala, Linda S Lee; Endosonography in the diagnosis and management of pancreatic cysts. *World J Gastrointest Endosc* 16;7(3):213-223.
5. Gull-Zareen Khan Sial, Abid Quddus Qazi, Mohammed Aasim Yusuf; Endoscopic Cystogastrostomy: Minimally Invasive Approach for Pancreatic Pseudocyst. *APSP J Case Rep* 2015;1(6): 4.
6. Hitoshi Seki, Tadashi Ueda, Takamitsu tasuya, Hitoshi kotanagi; Repeated percutaneous aspiration therapy prior to surgery for a pancreatic Pseudocyst: report of a case. *Surgery Today Avril 1998*; 28(5):559-562.
7. Wynn JJ, Bates WB, Teeslink CR, Nesbit RR; Perigraft pseudocyst complicating repair of ruptured aortic aneurysm: successful treatment by percutaneous aspiration. *Southern medical journal* 1990;83(9):1102-1103.
8. Hermans P, Hubens A; Percutaneous drainage of a pancreatic pseudocyst. *Journal belge de radiologie Décembre 1992*;75(6):484-485.
9. Zhong-Hua Sun; Abdominal aortic aneurysm: Treatment options, image visualizations and follow-up procedures. *Journal of Geriatric Cardiology* 2012; 9(1):49-60.