CASE REPORT
GLOBAL JOURNAL OF MEDICAL SCIENCES VOL. 1, NO. 1, 2002:65-67
COPYRIGHT(C) BACHUDO SCIENCE CO. LTD. PRINTED IN NIGERIA.


# PANCREATIC PSEUDOCYST - A DIAGNOSTIC DILEMMA IN THE TROPICS - A CASE REPORT

VICTOR O. ANSA, EDEM J. UDOMA, MARK S. UMOH and STEVE O. FAGBULE

(Received 8 May 2001; Revision accepted 20 August 2001)

## ABSTRACT

Pancreatic pseudocyst is a local but serious complication of acute pancreatitis. The diagnosis is difficult in the tropics where a number of diseases exist which may mimic this condition and diagnostic facilities are few and often inaccessible.

A case seen in the medical department of the University of Calabar Teaching Hospital, Calabar Nigeria illustrating this diagnostic difficulty is presented.

**Key Words:** Pancreatic pseudocyst, tropics.

## INTRODUCTION

Pancreatic pseudocyst is one of the local complications of acute pancreatitis(Bradley E.L.1993). It is a localised collection of pancreatic secretions that lacks an epithelial lining and it occurs in 10 - 15% of patients with acute pancreatitis(Mergener et al 1998). Its presentation may mimic those of many upper gastro-intestinal tract conditions. This is important in the tropical millieu where a number of diseases prevalent in the region may put practitioners in an ill-equipped hospital in a diagnostic dilemma.

The findings of a palpable upper abdominal mass or radiologic evidence of anterior displacement of the stomach offers circumstantial support for diagnosis. This however is not reliable as abdominal masses attributable to an oedematous pancreas and peripancreatic swelling of omental or retroperitoneal tissues are commonly found in many patients. Diagnostic ultrasound scan is however reliable in detecting pseudocysts and is also of great assistance in distinguishing between acute pseudocyst and peripancreatitic oedema (Toskes P.P. et al 1998, Gonzalez A. et al 1976). Other methods include computerised tomographic scan and arteriography. These are not available in most health institutions in Nigeria. Ultrasonography though available in a few centres is rather expensive. Practitioners may thus have to rely on their clinical skills examination and routine x-ray examination.

Pseudocysts that are greater than 5cm in diameter and persist for beyond 6 weeks should be considered for drainage. However some may resolve spontaneously. Those that fail to resolve may lead to serious complications with their attendant high mortality. These complications include gastric outlet obstruction, biliary obstruction, rupture, hemorrhage and abscess formation(Haubrich W. S. et al 1976) This report highlights the need to consider pancreatic pseudocyst as a differential diagnosis in patients with upper gastrointestinal symptoms. Also highlighted is the need for the provision of appropriate diagnostic facilities.

## CASE REPORT

Mrs R. F., a 28 year old lactating house wife was

VICTOR O. ANSA, Department of Medicine, University of Calabar Teaching Hospital, Calabar, Nigeria
EDEM J. UDOMA, Department of Obstetrics and Gynaecology, University of Calabar Teaching Hospital, Calabar, Nigeria
MARK S. UMOH, Department of Surgery, University of Calabar Teaching Hospital, Calabar, Nigeria
STEVE O. FAGBULE, Department of Medicine, University of Calabar Teaching Hospital, Calabar, Nigeria

referred from a private clinic to the Department of Medicine, University of Calabar Teaching Hospital on the 7th October, 1999. The history of her illness dated back to August the same year when she developed a dull abdominal pain located in the right hypochondrium and epigastrium. The pain did not radiate and there were no aggravating nor relieving factors. There was associated fever at the onset, which was high grade, intermittent with chills and rigors. The fever had abated at the time of presentation. These symptoms were said to have been preceeded by a few days history of passage of loose mucoid, non - bloody stools associated with colicky abdominal pains. Bowel motion was about three times a day and there was no tenesmus. She had no previous history of significant upper abdominal pain during pregnancy nor a significant history of alcohol ingestion. The drug history revealed nothing contributory and there was no history of jaundice.

Physical examination revealed an afebrile, acutely ill - looking, anicteric young woman. She had marked right hypochondrial and epigastric tenderness. The liver was enlarged 16cm below the right costal margin, soft, tender and smooth with a span of 28cm. Other abdominal organs were not palpable and there was no ascites.

An impression of Amoebic liver Abscess was made.

Basic investigations included Haemogram which showed Haemoglobin of 11g%. Total white Blood cell count 4.7 x $10^9$/L and Erythrocyte sedimentation rate 15mm/hr (Westergren).

Liver function test - Bilirubin Total of 9.8 umol/l, conjugated fraction 4.9 umol/l, Aspartate transaminase was 69 i.u/l and Alanine transaminase of 44i.u/l. Alkaline phosphatase was 194 i.u/l.

Stool microscopy showed no ova or cysts of parasites.

Chest and plain abdominal radiographs were normal.

Abdominal Ultrasound scan showed hepatomegaly with a sonoluscent area inferior to the right lobe, just below the interlobar fissure suggestive of early abscess formation (see fig. 1).

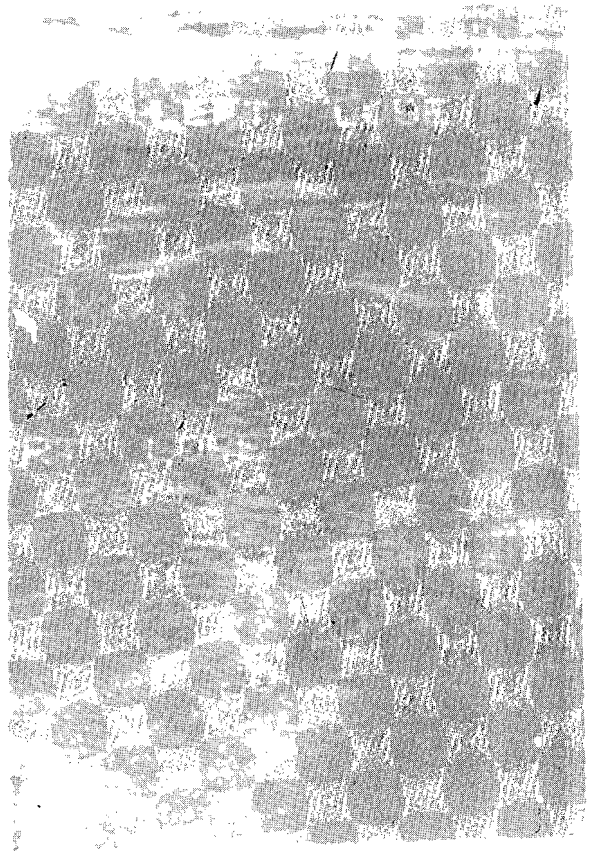

**FIG. 1** Abdominal Ultrasound scan showing a sonoluscent area (marked XXXX) that appeared like early Amoebic abscess formation in the liver. It turned out to be a Pancreatic pseudocyst.

The patient was started on metronidazole 800mg orally eight hourly but the clinical condition did not change after six days of treatment. Abdominal pain and distension persisted with no significant reduction in liver size. An ill - defined mass was also felt in the epigastrium and repeat abdominal ultrasound was requested. This showed a sonoluscent mass extending from the inferior aspect of the left lobe of the liver and was posterior to the stomach. It thus appeared like a retroperitoneal mass suggestive of a pancreatic pseudocyst. Serum Amylase estimation was however of normal value. A surgical consultation was sought and the

patient was booked for an exploratory laparotomy. At surgery a large thick walled pancreatic pseudocyst containing about three litres of greenish fluid was drained by transgastric cystogastrostomy. She received ceftriaxione 1g intravenously 12 hourly for 72 hours and the immediate post - operative period was uneventful.

She was discharged ten days after surgery and has remained well with no significant complaints during follow up clinical visits.

## DISCUSSION

Pseudocyst formation should be suspected in any patient with a history of pancreatitis or pancreatic trauma who remains persistently ill (Bradley E.L et al 1981). A few patients may however be essentially asymptomatic but in most cases of pseudocyst, there is upper abdominal pain, anorexia and weight loss(Toskes P.P.1998). The serum amylase may or may not be elevated and is generally of little value in establishing a definite diagnosis of pseudocyst (Bradley E .L. et al 1981). Although spontaneous resolution of acute pseudocyst occurs in approximately 25 - 40% of patients, resolution of chronic pseudocyst may occur only rarely (Mergener K.et al, Toskes P .P. et al 1998).

In our patient, the history of an attack of acute pancreatitis was not clearly obtained, neither was an obvious predisposing factor except pregnancy as a remote factor. The serum amylase level was normal and ultrasonographic examination was the only helpful investigation. This was however delayed because it was not easily accessible. Most health institutions in the country do not have facilities for sonography and where available is relatively expensive. Serial or repetitive sonographic examinations may sometimes be necessary for diagnosis and monitoring the behaviour of the cyst as was the case here.

Complications of pancreatic pseudocyst are usually life threatening and may be fatal. Early diagnosis and treatment is thus essential. This is more so in the tropical environment where lack of basic diagnostic facilities make early detection difficult. A number of diseases prevalent in the tropics may further pose diagnostic dilemma especially where diagnostic facilities are not readily available.

The provision of basic ultrasonographic and other diagnostic facilities in secondary and tertiary health institutions in developing countries is thus absolutely essential. This will reduce mortality from this treatable but potentially fatal condition.

## REFERENCES

Bradley, E. L. III, 1993. A Clinically based classification system for acute pancreatitis Arch Surg., 129: 586 - 590.

Bradley, E. L, Zeppa, R., 1981. The Pancreas In: D.C. Sabiston Ed., Textbook of Surgery W. B. Saunders Philadelphia, London; P. 1300 - 1303.

Gonzlalez, A., Bradely, E. L. III, Clements J. C. Jnr., 1976. Pseudocyst formation in acute pancreatitis. Experience with ultrasonic evaluation of 99 cases. Am J. Roentgenol 127: 315.

Haubrich, WS, Berk E. J., 1976. Cysts of the pancreas In: H L Bockus Ed., Gastroenterology. WB Saunders. Philadelphia, London, III: 1154 - 1168.

Mergener, K;, Baillie , J. , 1998. Acute Pancreatitis BMJ (W.A Edition), 2 (1):91-95

Toskes, P. P., Norton, J. G., 1998. Disorders of the Pancreas In: Harrison (Ed)., Principles of Internal medicine. 14th Edition, 303 : 1746 - 1748.