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Hepatic abscess in a patient with polycystic liver disease

A case report

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Summary

A patient with a liver abscess and underlying polycystic renal and liver disease is described. The liver abscess was diagnosed on the clinical findings and accurately localized by ultrasonography. Tube drainage and antibiotic administration resulted in a rapid recovery. The polycystic liver disease, which was previously undiagnosed and asymptomatic, was an unexpected finding at laparotomy.

S Afr Med J 1985; **67:** 559-560.

Polycystic liver disease is usually asymptomatic and of only anatomical interest, and in most cases the cysts are an unexpected finding at operation or autopsy.[1] Disturbed liver function is not a feature of the disease and the complications of rupture, intracystic haemorrhage and infection are rare.[1] The association between polycystic kidney and polycystic liver disease has been reported previously.[2-5]

A case of polycystic renal and liver disease complicated by a liver abscess is presented.

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Case report

A 32-year-old woman was admitted to hospital with a 2-week history of right upper abdominal pain referred to the right shoulder and associated with nausea, vomiting and rigors. She had never been jaundiced nor had she experienced symptoms of liver disease. Polycystic kidneys had been diagnosed 12 years previously and for the past year she had been treated for mild hypertension. Three months before this admission she had been admitted to hospital and treated for pyrexia of unknown origin.

On examination the blood pressure was 160/80 mmHg, the pulse rate 100/min and the temperature 38,5°C. Abdominal palpation revealed a moderately enlarged and tender liver. The spleen and kidneys were impalpable and there were no signs of chronic liver disease. Sigmoidoscopy was negative. The haemoglobin concentration was 7,0 g/dl, the leucocyte count 17 x 10^9/l and the erythrocyte sedimentation rate 120 mm/h. A liver abscess was considered in the differential diagnosis of the upper abdominal pain.

Chest radiography showed a right basal pleural effusion, and ultrasonography of the liver demonstrated a large abscess in the right lobe. Three blood cultures and the *Entamoeba histolytica* haemagglutination test were negative. Liver function tests showed normal bilirubin but elevated serum alkaline phosphatase values.

Transperitoneal drainage of a large liver abscess was performed through a laparotomy incision; 300 ml of foul-smelling yellow pus was evacuated and a latex drain was inserted into the abscess cavity to provide continuous drainage and to minimize intraperitoneal contamination and infection. At operation there were no signs of pelvic inflammatory disease or inflammation of the appendix. At laparotomy grossly polycystic kidneys were observed together with similar cystic changes present in the liver. The cysts varied from 2 to 10 mm

in size and were uniformly distributed throughout the liver. The liver cysts were left untouched. Gram staining of the pus revealed Gram-positive cocci but aerobic and anaerobic cultures were sterile. In addition to surgical drainage of the abscess the patient received intravenous cefamandole and metronidazole.

There was excellent clinical response and the patient was discharged after removal of the tube drain on the 14th post-operative day.

Discussion

The relationship between polycystic liver and kidney disease has been well documented.[1-5] The association has been reported to occur in about 50% of cases and cysts may be found in other organs including the pancreas, lungs, spleen, pericardium and brain.[1] The cysts may vary in size from very small to large. The fluid they contain is brown and histologically the surrounding liver tissue has a normal appearance.[1,5]

Because the majority of patients are asymptomatic, the diagnosis of polycystic liver disease is rarely made pre-operatively, but computed tomography has proved particularly helpful.[2]

In most cases surgical treatment is not warranted but may be indicated in symptomatic patients with incapacitating abdominal distension and ascites.[2] A variety of treatments have been recommended including cyst aspiration, excision of cysts and injection of sclerosant solutions into the cyst.[1,2,4] Recently, a new surgical approach has been used whereby superficial cysts are widely fenestrated to allow more deep-seated cysts to be similarly deroofed.[2] However, it is impossible and indeed undesirable to attempt to eradicate all lesions deep within the liver. Aspiration and excision of cysts which yield bile-stained fluid may cause biliary leakage necessitating cysto-jejunostomy.[2] Major hepatic resections are not justified except to relieve life-endangering complications.[1]

The operative findings and contents of the abscess in the case described here were suggestive of a cryptogenic pyogenic abscess since no other biliary, appendiceal or pelvic inflammatory condition could be identified. The abscess was adequately treated by transperitoneal surgical drainage and antibiotic administration.

The prognosis for uncomplicated cases of polycystic liver disease is excellent because the hepatic cysts rarely compromise hepatic function. The most common cause of death in these patients is renal failure due to polycystic disease of the kidney.[1]

We thank Dr J. P. van der Westhuyzen, Chief Medical Superintendent of Tygerberg Hospital, for permission to publish, and Mrs M. Louw for typing the manuscript.

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Rupture of the head of the pancreas by blunt trauma

A case report

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Summary

An unusual injury to the head of the pancreas is described. The various surgical options are discussed and the literature is reviewed. The Roux-en-Y pancreaticojejunostomy for a major isolated rupture of the head of the pancreas is considered to be the operation of choice.

S Afr Med J 1985; **67:** 560-562.

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Operations on the injured pancreas are among the most challenging in trauma surgery. As early as 1903 Miculicz[1] recognized the difficulties of pancreatic surgery because of the topographical situation of the pancreas, the problems in diagnosis and the danger inherent in any operation on this organ. These factors still characterize surgery for pancreatic trauma.

Injuries to the pancreas are infrequent, the incidence in both closed and open abdominal trauma being about 1 - 2%,[2,3] so that extensive experience in their management is seldom gained by the individual surgeon.

An unusual injury of the head of the pancreas was recently managed jointly by staff at the Ernest Oppenheimer Hospital, Welkom, OFS, and the surgical department at Pelonomi Hospital, Bloemfontein, and the case is presented in order to illustrate the surgical management of this problem.

Case report

A 27-year-old man was struck in the epigastrium by a 'scoop' while he was working underground in a gold mine in Welkom.