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Case report

Microcystic adenoma of the pancreas

M K Heatley, D C McCrory, M D O'Hara

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Microcystic adenoma of the pancreas is a benign tumour mainly occurring in elderly females. It is usually encountered as an incidental finding at laparotomy or autopsy. We report a case which occurred in a 66-year-old female, which was identified radiologically before operation and which was associated with a serous cystadenoma of the ovary.

Case Report. A 66-year-old lady presented with back pain so severe that she had remained in bed for the preceding four months. A mass was palpable in the left hypochondrium. She had a macrocytic anaemia (Hb 11·1 g/dl MCV 111 fl) due to vitamin B_{12} deficiency. There was no hyperbilirubinaemia and the liver transaminase concentration in the blood was normal. A random plasma glucose was also normal. Ultrasound and CT scans of the abdomen revealed a cystic mass related to the tail of the pancreas and a cystic tumour of the left ovary. At laparotomy a large mass was identified in the tail of the pancreas, which was attached to the transverse colon by a few adhesions. When these adhesions were broken the mass shelled out easily. The presence of a left ovarian cyst was confirmed and this was also excised. She made an uneventful recovery and was discharged from hospital after three weeks. Her anaemia was treated with hydroxycobalamin injections and she remains well one year later.

The resected specimen from the pancreas weighed 783 g and measured 14 × 11 × 8 cm. On section its multicystic character was confirmed, the cysts measuring up to 0·5 cm diameter, with a stellate scar at its centre. The cysts were lined by flattened cuboidal epithelial cells. The periodic acid Schiff stain, with and without prior diastase digestion, confirmed the presence of large quantities of glycogen in the cytoplasm of these cells. No mucin was detected. Sections from the capsule of the lesion showed compressed ribbons of cells which on immunohistochemical study stained positively for insulin and glucagon confirming that they were compressed islets of Langerhans. These appearances were characteristic of a microcystic adenoma of pancreas. The ovarian lesion showed the typical histological appearances of a benign serous cystadenoma.

Department of Pathology, The Queen's University of Belfast, Belfast BT12 6BA.
M K Heatley, MB, BCh, MRCPath, Senior Registrar.
M D O'Hara, BSc, MB, FRCPath, Consultant Histopathologist.

Department of Surgery, The Queen's University of Belfast, Belfast BT12 6BA.
D C McCrory, FRCSI, Registrar.

Correspondence to Dr Heatley.

Review of the surgical pathology records at the Royal Victoria Hospital, Belfast, over a 50 year period between 1939 and 1988 revealed only three other microcystic adenomata. All occurred in females. (Table). In the same period 102 primary pancreatic adenocarcinomata and 27 tumours of islet cell origin were diagnosed, suggesting that microcystic adenoma is an uncommon lesion.

TABLE

Clinical details of four patients with microcystic adenoma of the pancreas

Patient	*Sex/Age*	*Presentation*	*Site/ Maximum dimension*	*Diabetes*	*Other tumour*	*Length of follow-up/ Outcome*
1	F (44)	Incidental finding	Body 3 cm	No	Adrenal cortical adenoma	6 years Alive
2	F (48)	Obstructive jaundice	Head 12 cm	No	None	5 years Alive
3	F (75)	Incidental finding	Head Not stated	Yes	None	18 years Alive
4 (present case)	F (66)	Back pain	Tail 14 cm	No	Ovarian cystadenoma	1 year Alive

DISCUSSION

The majority of cystic lesions of the pancreas are of inflammatory or developmental origin and only 10–15% represent true neoplasms.[1] Neoplastic cysts may be classified on the basis of their epithelial lining into mucinous or serous cystadenomas.[2] Serous cystadenomas are also known by the more popular term microcystic adenoma of the pancreas. In five recent series[2-6] describing a total of 70 cases, microcystic adenomata were found to occur most commonly in females (F:M = 51:19) with a mean age of 67 years (range 37–89 years).

Microcystic adenomata most commonly occur in the pancreatic head but may also be encountered in the body or tail. Symptoms often reflect the site of the primary lesion. Those located in the pancreatic body and tail may present, as in this case, with non-specific symptoms such as backache and loin pain. Lesions situated in the pancreatic head can obstruct the external biliary tract, giving rise to obstructive jaundice[6] and ascending cholangitis.[2] Acute pancreatitis which might result if the pancreatic duct were obstructed by the tumour has not been described. Local pressure on the duodenum may induce mucosal ulceration resulting in gastrointestinal bleeding which can be fatal.[2] Other presenting complaints include weight loss, nausea and vomiting. Some cases are an incidental finding at laparotomy or at autopsy[2] or are identified on straight abdominal X-ray.

Microcystic adenomata are well defined lesions, since compression of adjacent pancreatic tissue results in the formation of a pseudo-capsule in which islet cells may be identified. The pseudo-capsule presents a line of surgical cleavage which

enables the tumour, especially if located in the tail of the pancreas, to be shelled out. A Whipple's operation may be required to ensure complete excision of a tumour located in the pancreatic head. In the series reviewed, patients were followed up for between three days and 25 years. There were six postoperative deaths; a few patients died due to the local effects of the microcystic adenoma.[2] A further 19 patients died due to unrelated disease. Malignant transformation was not described in any of these cases.

In cases 1 and 4, tumours in organs other than the pancreas were identified. A review of the literature failed to reveal any previous case in which either an ovarian serous cystadenoma or an adrenal cortical adenoma occurred in association with a microcystic adenoma of the pancreas. A greater incidence of tumours in body organs other than the pancreas, and of diabetes mellitus[2, 3] have been recognised in patients with this condition, although these findings may simply reflect the age of the patient.

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