

## Pancreatic Serous Cystadenoma Mimicking Pseudocyst

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*The serous cystadenoma of the pancreas is a rare lesion that is usually found incidentally. It is mostly observed as a spongy microcystic mass but rare variants such as macrocystic, unicystic, or multicentric are also seen. We recently experienced a unique case of unicystic serous cystadenoma mimicking a pseudocyst. It was grossly a unilocular cyst with surrounding dense fibrosis resembling a pseudocyst. Microscopically, the cyst was partly lined by low columnar-to-cuboidal cells with clear cytoplasm containing glycogen.*

**Key Words:** Serous cystadenoma of pancreas, pseudocyst

Serous cystadenoma of the pancreas (also known as glycogen rich cystadenoma, serous microcystic adenoma) is a rare lesion thought to be almost invariably benign (Oertel *et al.* 1994). It is usually found incidentally but may present as an abdominal mass with abdominal discomfort. Grossly, it presents as a lobulated mass with innumerable spongy cysts. We recently experienced a unique case of pancreatic serous cystadenoma which grossly simulates a pseudocyst.

### CASE REPORT

A 28 year-old woman was admitted to Severance Hospital with the complaint of right upper quadrant

pain for the previous 9 months. Prior to admission, she had earlier visited a local hospital with the above-mentioned symptom. The ultrasonography revealed a cystic mass in the pancreatic head and she was referred to Severance Hospital. The patient had no history of smoking, alcohol consumption or hereditary disease. On admission, the abdomen was soft and flat, and the mass was not palpable. Abdominal computed tomogram revealed a well-circumscribed cystic mass at the pancreatic head. Under the impression of a pseudocyst, an operation was performed. The cystic mass involved the pancreatic head with surrounding fibrosis. A frozen section was done during the operation and the diagnosis was benign. Enucleation of the cyst was performed.

The resected specimen was a 1.5×1 cm sized irregularly-shaped unilocular cystic mass with a thick fibrotic wall. It contained reddish-brown serous fluid and the inner wall was irregular and ragged. A small amount of yellowish-gray pancreatic parenchyma was attached to the external surface of the mass.

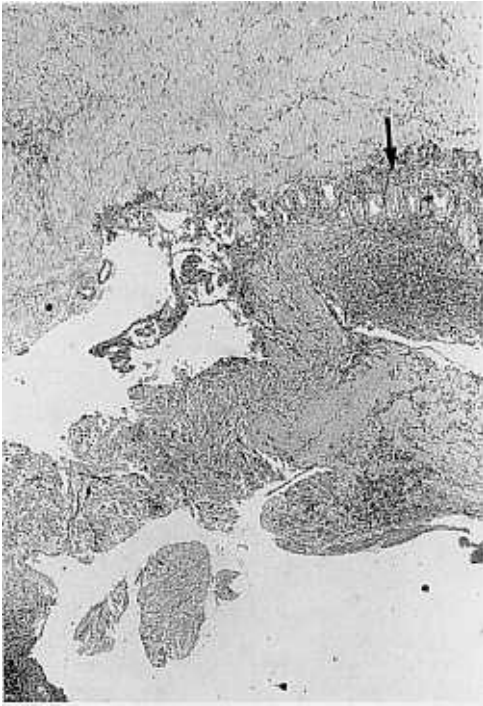
Microscopically, the cyst wall showed dense fibrosis with chronic inflammation and hemorrhage

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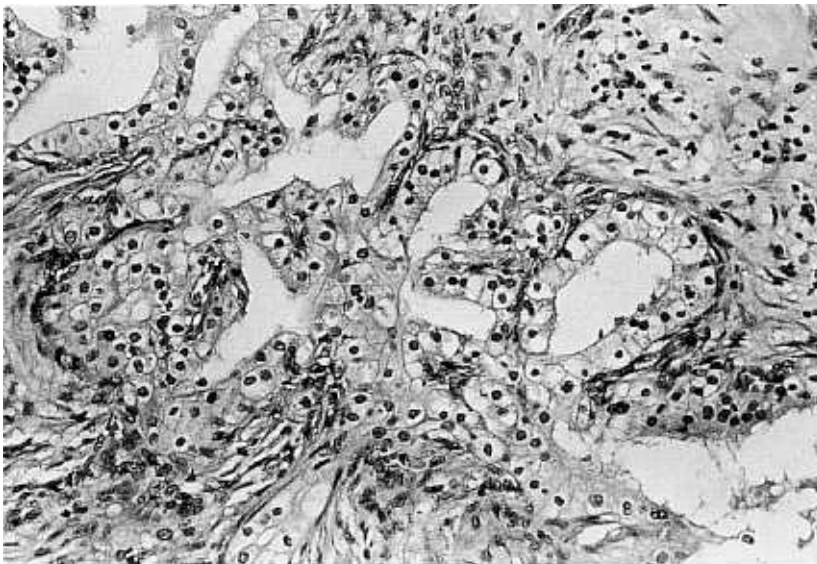


**Fig. 1.** Cystic wall shows dense fibrosis, infiltration of chronic inflammatory cells and a few small glands embedded (arrow)(H&E,  $\times 40$ ).

resembling a pseudocyst (Fig. 1). But multiple sections revealed a small area of gland forming low columnar to cuboidal cells with clear cytoplasm (Fig. 2) which stained with PAS and disappeared after diastase treatment. No definite anaplasia or mitosis was seen. The remaining pancreatic parenchyma was unremarkable.

## DISCUSSION

Serous cystadenoma is a rare benign tumor thought to be a subtype of cystic tumors arising in the pancreas (Compagno and Oertel, 1978). It is believed to arise from the pancreatic ducts (Moza, 1951) and is usually large and well circumscribed. It is more commonly found in women, mostly in the sixth decade, and may present with vague abdominal pain or abdominal mass when it is large (O'Dell *et al.* 1991). It is also found incidentally during various abdominal procedures or during autopsy. Grossly, it appears as a partly-encapsulated, lobulated mass composed of innumerable cysts with spongy appearance (Oertel *et al.* 1994), and rarely



**Fig. 2.** The glands are composed of low columnar to cuboidal cells with clear cytoplasm (H&E,  $\times 200$ ).

exceeds 2 cm in diameter. Although it is commonly presented as a microcystic tumor, several variants including macrocystic or unilocular (Lewandrowski *et al.* 1992) or multicentric (Kim *et al.* 1990) has been reported. These variants create diagnostic difficulties for radiologists and pathologists alike. Therefore, the recognition of such variants is important for proper diagnosis. When gross features suggest a pseudocyst, a careful search of multiple sections is required to show the lining epithelium. Our case is presented as a small unilocular cystic mass with surrounding dense fibrosis and inflammation mimicking a pseudocyst. The recognition of simple cuboidal or low-columnar lining epithelium with clear-eosinophilic cytoplasm containing glycogen made it possible to diagnose correctly.

Patients with serous cystadenoma are thought to have an excellent long-term prognosis. Serous cystadenocarcinoma, the malignant counterpart of the serous cystadenoma, is extremely rare and it is not known whether this is a distinct entity. Only one example with metastasis to the liver and stomach was reported (George *et al.* 1989). Although the existence of serous cystadenocarcinoma is controversial, complete resection of the serous cystadenoma is still recommended because of the rare possibility of malignancy and other complications

such as gastrointestinal hemorrhage or obstruction of the biliary tree (Yamaguchi, 1990).

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