

:
 :
 : 8 26-49 (37)
 1 7 CT(n=8), (n=8),
 (ERP; n=6), (n=3) MRI(n=1)
 , , CT
 : , 가 3 , 3 , 2
 4 cm(1-8 cm) CT 가 4
 3 , 2
 3
 :
 , CT
 ,
 Compagno (1)
 , 가
 (1). 10.8 cm
 1-20 mm
 , 1980 1990
 , (macrocystic)
 가 (6-9), (unilocular) (9), (sol-
 가 id) (10), (multicentric)
 (11) 5 8
 (2, 3) 4
 가
 CT
 가 (2, 4). (6, 12, 13)
 가 (3, 5).
 가
 가
 가

8

8 1:7 26-49

37 , 가 3 , 3 , 2

가 3 , 4 , 1 1-8 cm

4 cm 4 가 4

CA 125가 2 ,

CA 19-9가 1 CEA(carcinoembryonic anti- CT 8 가

gen)가 , 가 2

, 가 4 3 CT

, 가 가 (Table 1). 가 3 1

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Whipple , 3

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MRI 1

, T1- , T2-

Table 1. Summary of the Clinical and Radiographic Findings in 8 Patients with Macrocystic or Unilocular Serous Cystadenomas of the Pancreas.

Patient	Sex/Age	C.C.	Lab	Finding	Clinical Diagnosis	Radiologic Diagnosis	Operation
1	F/36	abdominal pain	normal	lobulated unilocular	indeterminable	indeterminable	distal pancreatectomy
2	F/28	abdominal discomfort	normal	unilocular wall enhancement	indeterminable	PS *	enucleation
3	F/49	incidental	normal	unilocular	indeterminable	indeterminable	enucleation
4	M/38	epigastric discomfort	CA 19-9	unilocular	indeterminable	indeterminable	distal pancreatectomy
5	F/28	RUQ pain	CA 125	macrocystic fine septae on US & CT	MCN [‡]	MCN	enucleation
6	F/49	incidental	normal	macrocystic fine septae on US wall enhancement	MCN	MCN SCA [†] / PS (CT)	distal pancreatectomy
7	F/40	incidental	normal	macrocystic fine septae on US	MCN	indeterminable PS (CT)	distal pancreatectomy
8	F/26	headache, vomiting	normal	macrocystic fine septae on US & CT wall enhancement	MCN	MCN	distal pancreatectomy

* PS ; pseudocyst

[†] SCA ; serous cystadenoma

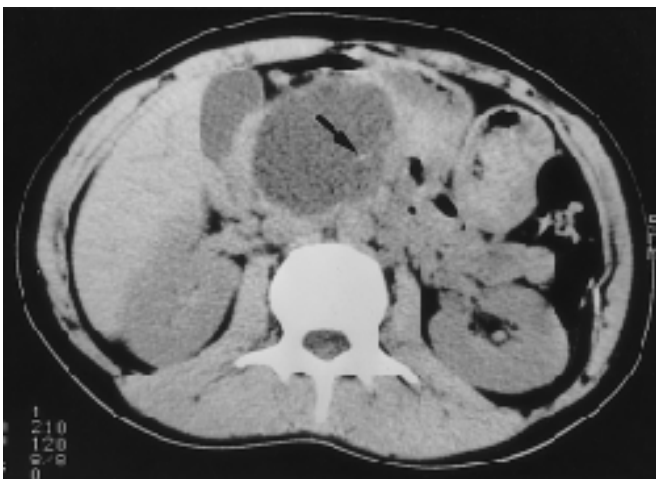
[‡] MCN ; mucinous cystic neoplasm

Compagno (1)
2 cm

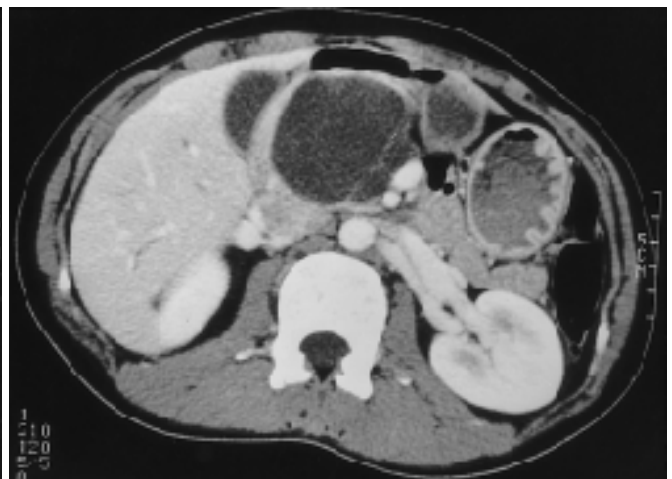
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(2, 15), von Hippel-Lindau
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(17, 18).
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19
(9).
가
Warsaw (3, 20) 18 6 가
(cystoenteric
drainage)
가
(3, 13, 21).
(21, 22).



A



B



C

Fig. 1. Macrocystic serous cystadenoma. (Case 5)
A. Nonenhanced CT scan shows a about 6.5 × 4.5 cm sized cystic mass on the head of the pancreas. Small calcific focus (arrow) is seen within the mass.
B. Contrast-enhanced CT scan reveals a macrocystic mass with thin septa. The wall of the cyst is fairly defined. Superior mesenteric vein is displaced to the left side by this mass.
C. Contrast-enhanced image 2.5 cm cranial to the level of figure 1b. Dilatation of the main pancreatic duct is demonstrated.

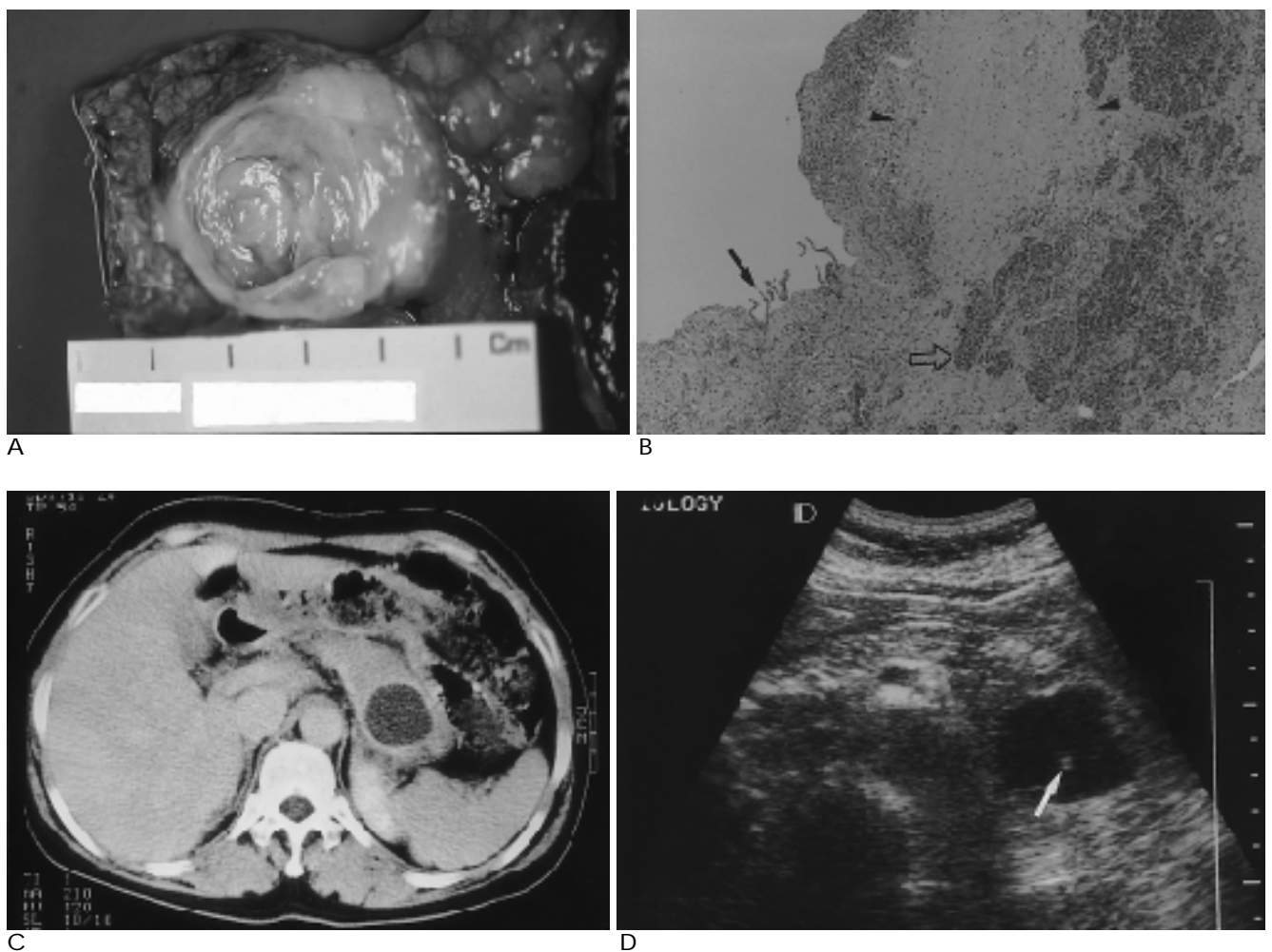


Fig. 2. Macrocystic serous cystadenoma. (Case 6)

A. Bisection of the tumor reveals a well-demarcated cystic mass containing clear serous fluid. Most of its wall is thin, but partly thickened. Peripherally located septum is visualized.

B. The cyst is lined by single cuboidal epithelia, which are partly denuded (arrow), and surrounded by the fibrous tissue (arrow-head) and the parenchyma of chronic pancreatitis (open arrow) (H&E stain, $\times 40$).

C. On the delayed image of contrast-enhanced CT scan, a 3.0 cm-sized cystic mass is noted on the tail of the pancreas without evidence of septation or calcification. The wall of the cyst is relatively enhanced, comparing to the parenchyma of the pancreas, which is proven as fibrosis and surrounding chronic pancreatitis.

D. Abdominal US shows an echogenic focus (white arrow) within internal fine septa, indicating calcification.

A. On contrast-enhanced CT scan, a 3.5 cm-sized, well-circumscribed cystic lesion is seen on the head of the pancreas. The wall is very thin and even.

B. ERCP shows smooth displacement of the pancreatic duct (arrowheads) without evidence of communication with the cyst.

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Radiologic Findings of the Serous Cystadenomas of the Pancreas with Macrocystic or Unilocular Variants : Comparison with the Pathologic Findings¹

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Purpose : To evaluate the radiologic findings of the serous cystadenomas of the pancreas with macrocystic or unilocular variants and to compare them with the pathologic findings.

Materials and Methods : In eight patients(7 females and 1 male ranging in age from 26 to 49 [mean, 37] years) with surgically proven serous cystadenomas, the findings of abdominal CT(n= 8), abdominal sonography(US, n= 8), endoscopic retrograde pancreatography(ERCP, n= 6), endoscopic sonography(EUS, n= 3), and MRI(n= 1) were evaluated. The location and size of tumors, lobulation, internal septa, solid component, calcification, communication with the pancreatic duct, dilatation of the proximal pancreatic duct, and contrast enhancement on CT were assessed and compared with the pathologic findings.

Results : Tumors were located in the head(n= 3), body(n= 3) and tail(n= 2), and their mean size was 4 (range, 1-8) cm. Abdominal CT scanning revealed well-defined cystic masses composed of macrocyst(s) with calcification(n= 3) and dilatation of the proximal duct (n= 2). Three cases showed contrast enhancement of the cystic walls, the pathologic examination of which revealed fibrotic tissues. Four tumors were unilocular without septation or lobulation; these features, together with calcification, were depicted more clearly by US and EUS. ERCP revealed no communication between the cysts and pancreatic ducts. Imaging studies showed that macrocystic adenomas were superimposed on mucinous cystadenomas, and unilocular adenomas were indistinguishable from pseudocysts.

Conclusion : Serous cystadenomas of the pancreas with macrocystic or unilocular variants are common in middle-aged women. Features present due to the existence of fibrotic tissues, and which may be revealed by contrast-enhanced CT, include internal septa, calcification, duct dilation, and prominent enhancement of the cystic wall. Serous cystadenoma should be included in the differential diagnosis of macrocystic or unilocular cystic lesions of the pancreas.

Index words : Pancreas, CT
Pancreas, cysts
Pancreas, US
Pancreas, MR

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