

CT :

CT

1

• • • • • 2 • 3

CT

•

: 10 26 - 57 (: 46) , 가 4 , 가 3

CT

3 가
5 - 18 cm(: 8.4 cm)
가 1 , 가 2 , 가 3 , 가 1
6 , 2 6
1

2, 2
CT 4 3
, 1
CT 2 가
CT 3 CT

: 가 5 cm , 가
, CT

7 CT

가 , CT .
가 (1 -

3).

CT

가 10 (5) (2)

(4). 7 CT
가 (5), CT 2

57 46 , 가 4 , 가
3 . 가 3 , 4

1

2000	11	2	2001	3	20
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CA19 -

CT

9 4 AFP CEA 1 가 2 (29%) 6

가 6 (85%)

CT CT 4 1 가

CT CT 2 (29%) CT

4 3

(Fig. 1), 1 CT 2

가 (Fig 2). CT 3 CT

CT

5 2 (Table 2).

5 5 cm

4 가 가

2

가 4

3

가가 (Table 1).

CA19-9 4 AFP CEA 1 zymogen

(Fig. 1).

5 - 18 cm(: 8.4 cm)

가 1 , 가 2 ,

가 3 , 가 1

6 (85%) (acinar cell)

Table 1. Summary of Clinical Data in Seven Patients with Pancreatic Acinar Cell Carcinoma

Case	Age/Sex	Symptom	Amylase/Lipase	Bone/Skin Lesion	Confirm
1	43/F	Epigastric pain	Normal/Normal	- / -	Biopsy
2	55/M	LUQ mass	Normal/Increased	- / -	Operation
3	39/M	Flank pain	Normal/Increased	- / -	Operation
4	49/F	LUQ pain	Normal/Normal	- / -	Operation
5	53/M	LUQ pain	Normal/Increased	- / -	Operation
6	57/M	Epigastric pain	Normal/Normal	- / -	Biopsy
7	26/F	Jaundice	Normal/Normal	- / -	Operation

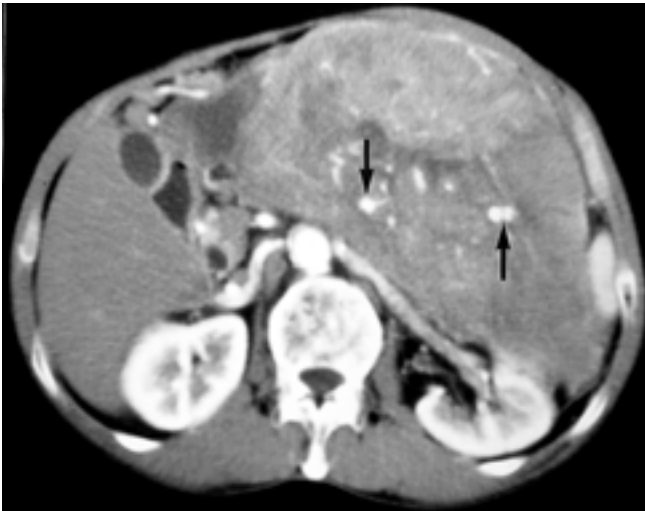
LUQ : Left upper quadrant

Table 2. Summary of CT Findings in Seven Patients with Pancreatic Acinar Cell Carcinoma

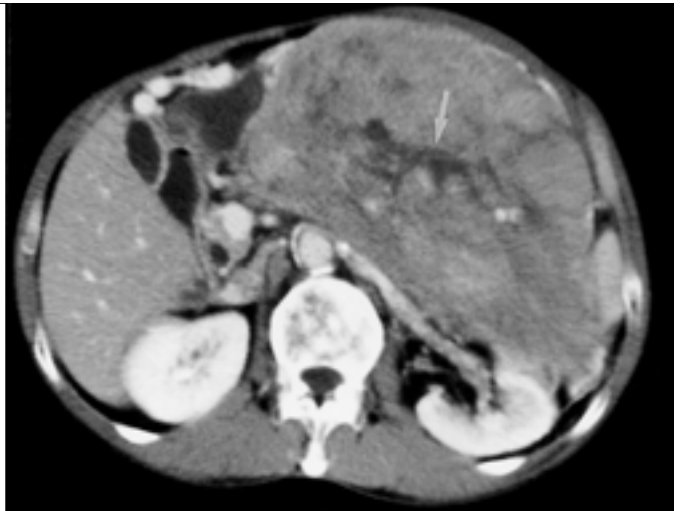
Case No.	Size (cm)	Location	Nec.	Calcif.	Capsule	Invasion	Mets.	LN	Enhancement(CT)	
									spiral	convention
									A	V
1	5	body	+	+	+	-	+(liver)	-	high	iso
2	18	body,tail	+	-	+	-	-	-	high	iso
3	6	tail	-	-	-	-	-	-	low	low
4	9	tail	+	-	+	+(spleen)	+(liver)	-	high	iso
5	5	tail	+	-	+	+(spleen)	-	-	low	
6	11	body	+	-	+	-	-	-		low
7	5	head	+	+	+	-	-	-		low

Nec: necrosis, Calcif.: calcification, Mets.: metastasis, LN: Lymph node, A: Arterial phase, V: venous phase

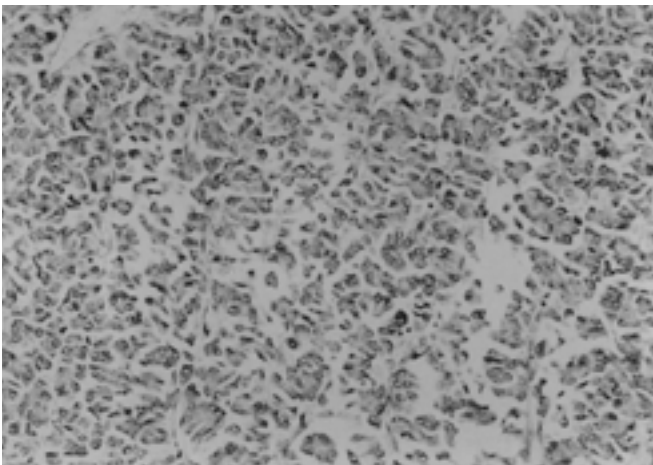
(1). (6) 104 1 - 13 % 2 (1.9%) 3 가가 (3).
 가 , 60 가 . Klimstra 1 56.5% , 5
 5.9% (2). 82 - 96%
 CA19 - 9 가 ,
 AFP(alpha - feto protein) CEA(carcinoembryonic
 antigen) 가 가 , 가
 (2, 7, 8). 4
 (3). CA19 - 9, 1 AFP CEA



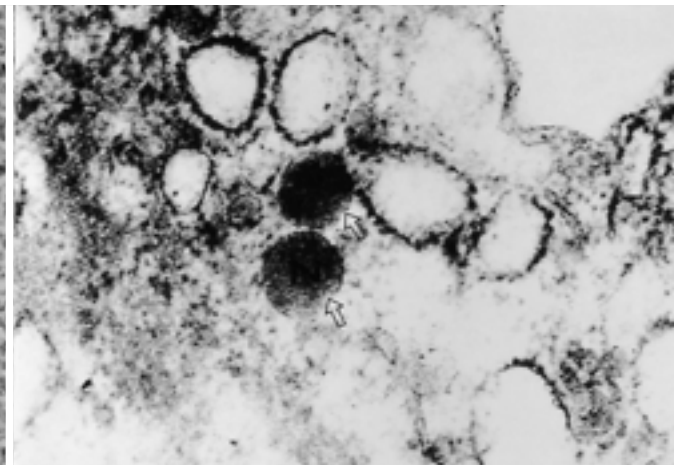
A



B



C



D

Fig. 1. An 55-year-old male patient with left upper quadrant mass.

A. The Arterial phase of spiral CT image shows huge sharply circumscribed , hyperattenuated mass arising from body and tail of pancreas. Note multiple enhancing vessels(black arrows) in mass.

B. The Venous phase of spiral CT image shows that mass become isodense with normal pancreas. The mass contains central necrotic area(white arrow).

C. Photomicrograph finding. The tumor cells show acinar arrangement with minute central lumen(H&E stain, x100).

D. Electron microscopic findings. The tumor cells have a few electron-dense zymogen granules(open arrows)(x 35,000).

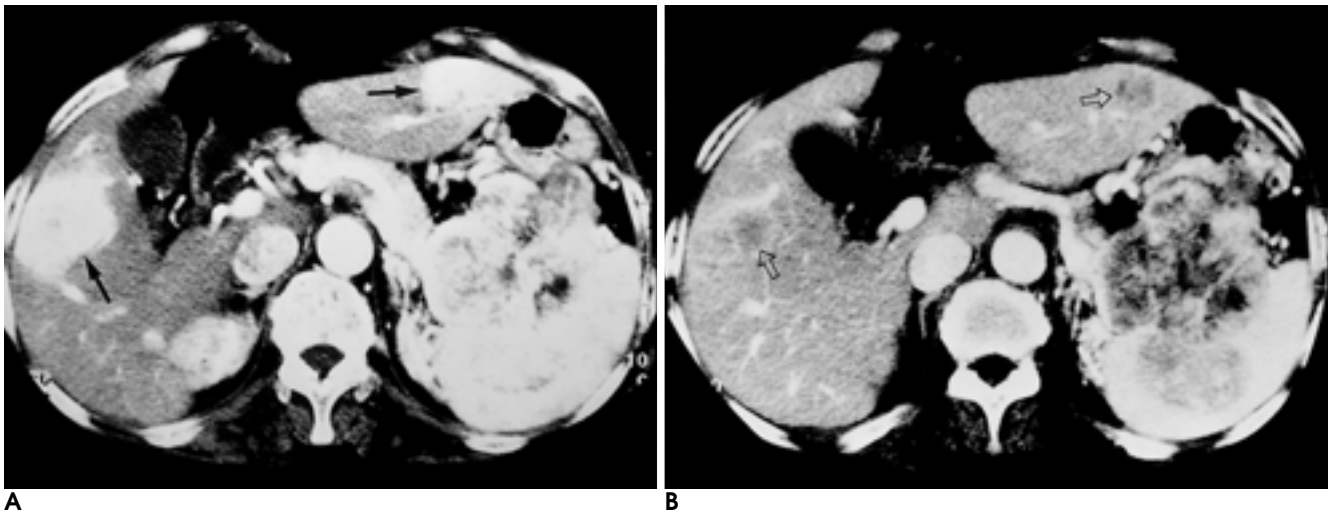


Fig. 2. An 49-year-old female patient with left upper quadrant pain.

A. The Arterial phase of spiral CT image shows hyperattenuated pancreatic tail mass with splenic invasion. Note highly enhancing metastatic nodules in S3,S5 of liver(black arrows)

B. The Venous phase of spiral CT image shows that mass becomes isodense with multiple low density necrosis. The metastatic hepatic nodules become hypoattenuated(open arrows).

가
, 가
(2). 2
(acinar structure)
가
(zymogen - like
granule)
carboxyl ester lipase,
pancreatic secretory trypsin inhibitor pancreatic phospho-
lipase A2가
tissue peptide antigen(TPA), CEA, CA19 - 9
(9 - 13).
가 가 (2), CT
1 가 , 가 ,
가 CT
(1). 1
가 (4). CT 4
3

CT
(14, 15). 가
가 , 가 ,
가 가 ,
가 가
가 가
(15, 16).
(Solid and papillary epithelial neoplasm)
가 가
(16, 17).
CT 가 ,
2

- 33

CT Findings of Acinar Cell Carcinoma of the Pancreas: Focused on Spiral CT Findings¹

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Purpose: To evaluate the CT findings (in particular, those of dual-phase spiral CT) of acinar cell carcinoma of the pancreas.

Materials and Methods: We retrospectively reviewed the CT findings of pathologically confirmed pancreatic acinar cell carcinoma in seven patients (M:F = 4:3) aged 26 - 57 (average, 46) years. Serum amylase and lipase were clinically checked, and concomitant subcutaneous nodules or osteolytic bony lesions were evaluated. Contrast-enhanced CT scanning was performed in seven cases, and in four of these, dual-phase spiral CT scans were also obtained. Tumor size and location, the extent of intratumoral necrosis, calcification, contour, margin, capsule, adjacent organ invasion, lymphadenopathy, hepatic metastasis and enhancement pattern were analyzed.

Results: Serum lipase was elevated in three cases, but in all, the serum amylase range was normal. In no case were subcutaneous nodules or osteolytic bony lesions observed. The size of the mass was 5 - 18 (mean 8.4 cm), and tumors were located in the tail (n = 3), body (n = 2) and head (n = 1), with one involving both the body and tail. Intratumoral necrosis was noted in six of seven cases and calcification in two. A lobulated contour with capsule was observed in six, and in two there was splenic invasion. In three of four cases in which dual-phase spiral CT was performed, the enhancement pattern was high during the arterial phase and isodense with normal pancreatic parenchyma during the venous phase. In two cases involving spiral CT, multiple hyperattenuated hepatic metastasis was observed during the arterial phase. In three cases in which conventional post-contrast CT was performed, the tumor showed low enhancement.

Conclusion: Pancreatic acinar cell carcinoma is rare, but if a large, well encapsulated, strongly enhanced pancreatic mass showing central necrosis is observed during the arterial phase of dual-phase spiral CT, and metastatic nodules are also present, pancreatic acinar cell carcinoma should be differentiated from other pancreatic neoplasms.

Index words : Pancreas, CT

Pancreas, neoplasms

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