

A Case of Osteoclast-like Giant Cell Tumor of the Pancreas

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Osteoclast-like giant cell tumor of the pancreas is a very rare tumor. Despite their striking morphologic resemblance to certain mesenchymal tumors of bone and tendon sheath, it has been suggested that these tumors may arise from epithelial precursors. This unusual tumor presents in the 6th or 7th decade with a nearly equal gender ratio. Pure forms of osteoclast-like giant cell tumor have a better prognosis because they have a predilection to local spread, are slower to metastasize and rarely metastasize to lymph nodes, but these forms are very rare. We present an osteoclast-like giant cell tumor arising in the body of the pancreas in a 71 year-old male patient. The tumor was composed of two major cell types: atypical mononuclear cells and abundant osteoclast-like multinucleated giant cells. Immunohistochemical studies showed that atypical cells were strongly reactive for vimentin and focally reactive for cytokeratin. In contrast, the giant cells were immunoreactive for CD68, but negative for cytokeratin. Three months later, the tumor size increased and liver metastasis was newly developed. He died at 11 months after the diagnosis. (**Korean J Gastroenterol 2005;45:441-445**)

Key Words: Osteoclast-like giant cell tumor; Pancreatic neoplasms

(giant cell tumor)

(pleomorphic)

(osteoclast-like)

1968

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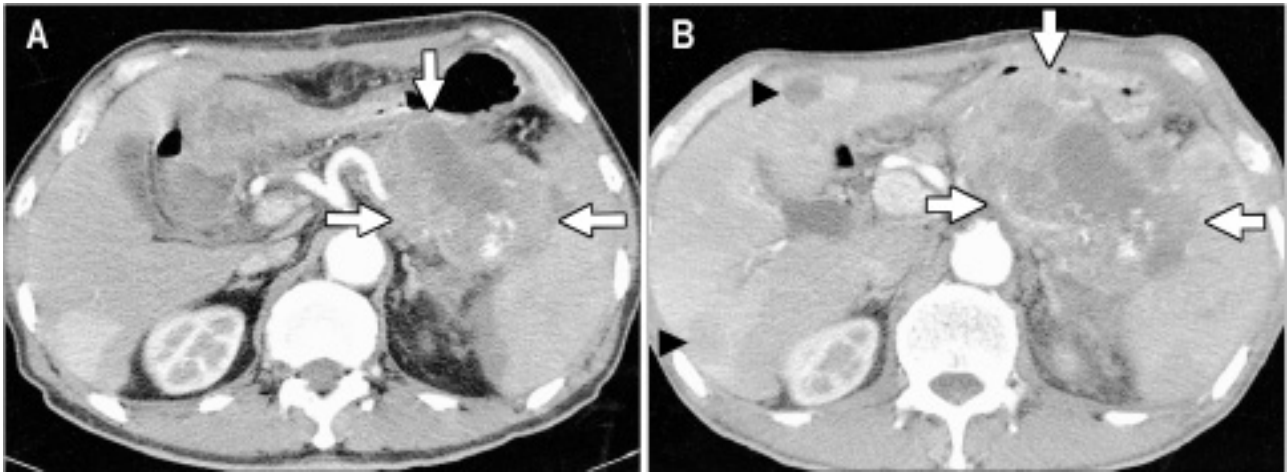


Fig. 1. Abdominal CT findings. (A) A 9×6 cm sized, solid and partly cystic mass (arrow) which encases the splenic artery is shown at the body and tail portion of the pancreas. The mass invades the stomach, splenic hilum and parenchyma of pancreas. (B) Three months later, the mass size is increased to 12×8 cm (arrow) and liver metastasis is newly developed (arrowhead).

가 (Fig. 1).

가 가 가 가

가 가 (Fig. 2).

가
cytokeratin
vimentin
CD68

(Fig. 3).

71 가 5
4

가
3
12×8 cm 가 가

1 , 10
120/70 mmHg, 70 / , 20 / , 36.5°C
10.1 g/dL, 5,280/mm³, 154,000/
mm³, AST/ALT 26/37 IU/L,
90 IU/L, 0.8 mg/dL, CA
19-9 80.5 U/mL, CEA 1.1 ng/mL

11

Sommers ³

9×6 cm

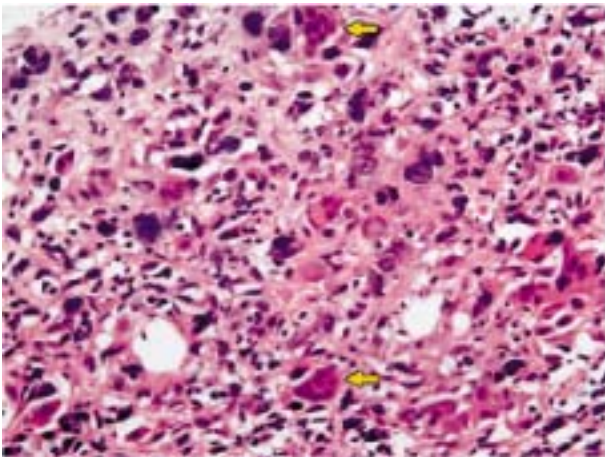


Fig. 2. Microscopic findings. The tumor is composed of two major cell types: atypical mononuclear cells and abundant osteoclast-like multinucleated giant cells. The atypical cells show eosinophilic and partially granular cytoplasm, anisokaryotic, hyperchromatic nuclei and prominent nucleoli. The osteoclast-like giant cells lack features of atypia (arrow) (H&E stain, $\times 200$).

(spindle and giant cell carcinoma)

(anaplastic)
가

가

가

40

5

가

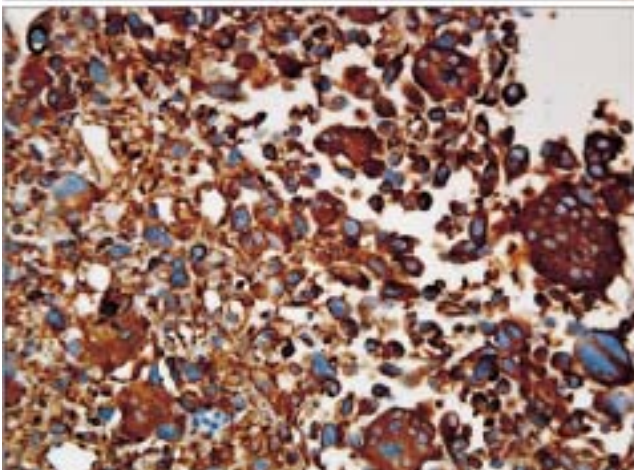
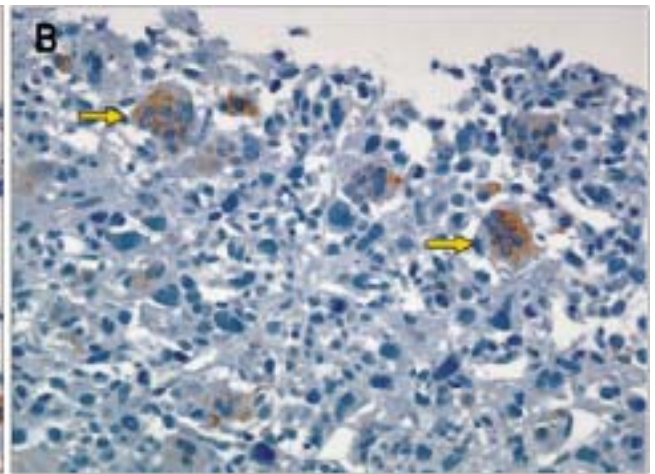
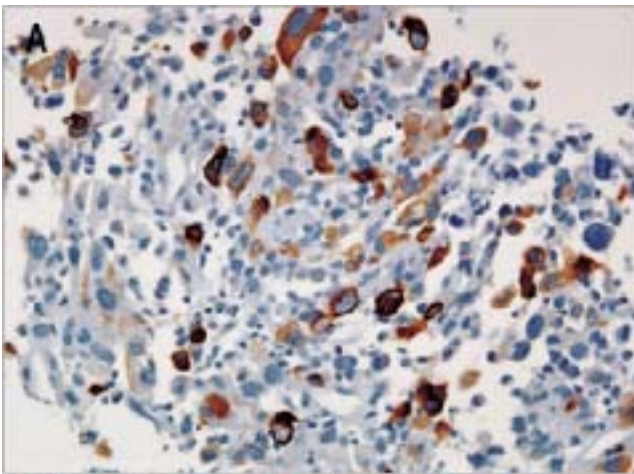


Fig. 3. Immunohistochemical findings. (A) The atypical cells are focally immunoreactive for cytokeratin, whereas the osteoclast-like giant cells are negative (cytokeratin, $\times 200$). (B) Osteoclast-like giant cells are immunoreactive for CD68 (arrow), whereas the atypical cells are negative (CD68, $\times 200$). (C) Both types of cells are strongly positive for vimentin (vimentin, $\times 200$).

6,7

mucicamine K-*ras*
가 가

(des-
mosome) 가 가 가

가 가 가

vimentin 11 가 가
가 가 12,13 가

vimentin cytoke-
CK7, CK8, CK18 CK19가 7,9,14
K-*ras* 가 15-18 가

8-10 19
CD68, CD56, vimentin 60.8

20 20.4

가 가

p53, p16, APC, DPC4
(loss of heterozygosity) *p53, p16* 1/3 71

가 가 11
가 가 가
가 가 가

(mali-
gnant fibrous histiocytoma) 가 가 가

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