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^{99m}Tc-HMDP accumulation in a phyllodes tumor of the breast, a case report

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In a patient with breast tumor, ^{99m}Tc-HMDP accumulation in the tumor was recognized in evaluating bone metastasis. Surgery and histopathology revealed that the tumor was a phyllodes tumor. This scintigraphic finding was thought to be rare and phyllodes tumor should be included in differential diagnosis when ^{99m}Tc-HMDP accumulation in the breast was recognized.

Key words: breast, phyllodes tumor, bone scintigraphy, ^{99m}Tc-HMDP

CASE REPORT

A 45-year-old female was referred to our hospital due to a right large breast mass. 3 years before, she noticed an asymptomatic right breast mass 2 cm. in diameter which gradually increased in size. When the patient was admitted, the mass was lobulated, well-delineated, movable and measured 18 cm in diameter. No skin ulcer or lymph node enlargement was recognized. CT showed a large lobulated, homogeneous density tumor replacing the entire right breast (Fig. 1).

^{99m}Tc-HMDP bone scintigraphy was employed to evaluate bone metastasis, and there was abnormal accumulation in the tumor but no bone metastasis was recognized (Fig. 2A, B).

Simple mastectomy was performed and the histopathological finding was a phyllodes tumor of the breast. There was no microscopic calcification or necrosis (Fig. 3A, B).

DISCUSSION

Phyllodes tumor is not so common (2–3% of the fibroepithelial tumors of the breast), and giant fibroadenoma is a synonym for it. It was first described in 1838 by Johannes Müller and he emphasized its benign character yet called it cystosarcoma phyllodes because of its leaf-like and sometimes blastomatous aspect. This tumor is characterized by its bulky sphenoidal mass and rapid growth, and it often derives from a small pre-existing fibroadenoma.[1,2]

The accurate diagnosis of this tumor is dependent on histological examination after its removal, and noninvasive preoperative diagnosis is not so easy.[3] It is reported that ultrasound findings including low-level internal echoes, smooth walls and good through

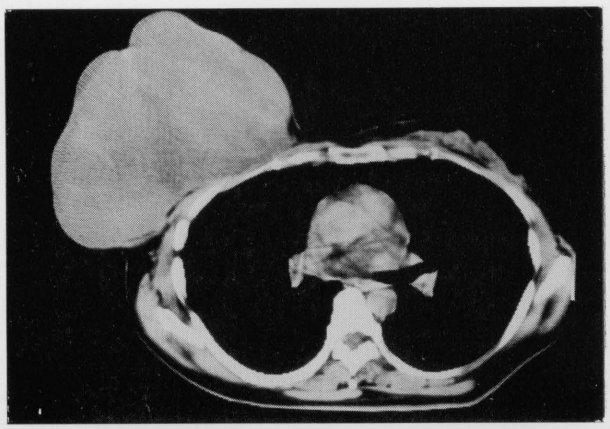

Fig. 1 CT showed a large lobulated, homogeneous density tumor in the right breast.

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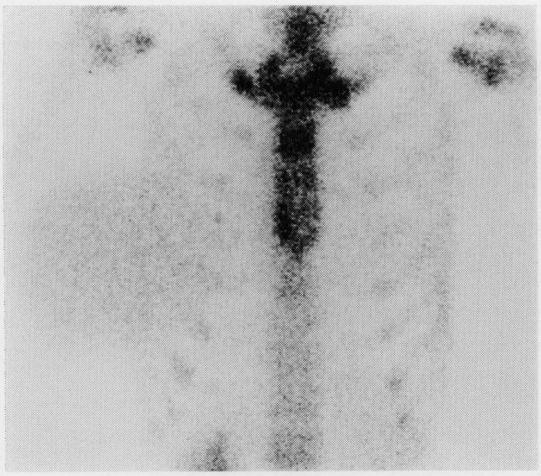
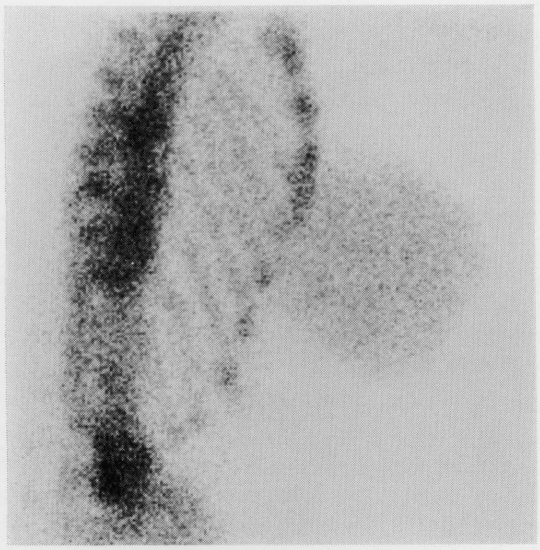


A



B

Fig. 2A, B ^{99m}Tc-HMDP accumulation in the right breast tumor was recognized (A: anterior view, B: right lateral view).

transmission are useful in diagnosis.[4] Many causes of breast accumulation in bone scintigraphy are also reported. Breast carcinoma is common and other tumors are rare.[5] In breast carcinoma, it is reported that the breast accumulation of ^{99m}Tc-MDP is affected by tumor size but has no relationship with histological type, estrogen receptor or microscopic calcification.[6]

In conclusion, a phyllodes tumor of the breast was reported. ^{99m}Tc-HMDP accumulation in the tumor was recognized. This finding was rare.

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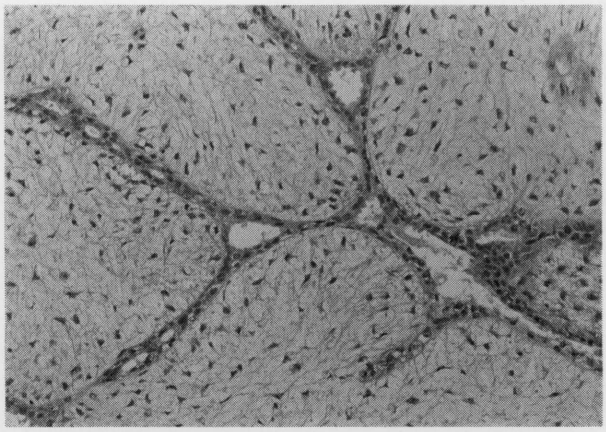
A



B

Fig. 3A, B The tumor was revealed as a phyllodes tumor of the breast (A: Surgical specimen, B: H-E strain).

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