Case Report

Angiosarcoma of the Breast: Report of a Case and Autopsy Findings

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We report a case of angiosarcoma of the breast and the autopsy findings. The patient was a 35-year-old premenopausal woman who complained of a tumor in her left breast. We found a tumor measuring 55 mm in diameter in the lower external quadrant. The tumor was elastic and soft, smooth surfaced, well-defined and mobile. Dimpling sign or change of skin color were not observed. Clinically it was diagnosed as phyllodes tumor, but tumorectomy revealed primary angiosarcoma of the breast. Further extended surgery was recommended, but the patient refused additional therapy. Histological findings revealed a free surgical margin and neither lymph node metastasis nor distant metastasis were clinically observed. Seven months later, local recurrence in the same breast was recognized and finally radical mastectomy was carried out. Histological findings showed recurrence of angiosarcoma in the left breast but lymph node metastasis was not detected. Two months after mastectomy, metastases to the cervical and thoracic vertebrae were observed and radiation therapy was performed. Sixteen months from onset, she died due to multi-organ failure as general metastases of angiosarcoma. At autopsy, metastases to many organs including the digestive system were observed. The incidence of primary angiosarcoma of the breast is low but its prognosis is poor. This case emphasized the difficulties in clinical diagnosis and treatment for the angiosarcoma of the breast.

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Angiosarcoma of the breast is a very rare malignant breast tumor. Only 20 Japanese patients have been reported1-7. The incidence of angiosarcoma of the breast has been reported as 0.03-0.1% among the malignant tumors originating the breast. Accurate preoperative diagnosis is difficult since it is usually well-defined, elastic and soft resembling a benign breast tumor. In fact, the initial diagnosis of the present case was phyllodes tumor but histological findings revealed angiosarcoma of the breast. In this report, we introduced a rare non-epithelial breast tumor and discussed problems in the diagnosis, treatment and the autopsy findings with the review of some literature.

Case Report

A 35-year-old premenopausal woman was admitted with a history of left breast tumor on April 12, 1994. Her familial history, past history and laboratory data including carcinoembryonic antigen and CA 15-3 were not remarkable. In the lower external quadrant of her breast, a tumor measuring 55 mm in diameter was found. On physical examination, the tumor was elastic and soft, smooth surfaced, well-defined and mobile without dimpling sign or change of skin color. On ultrasonography, a round hypoechoic mass with
a well-defined boundary was detected. The internal echo of the tumor, however, showed rough and irregular features with posterior echo relatively increased. No contralateral shadow was found (Fig 1). Mammography showed neither obvious tumor shadow nor microcalcification. The findings of aspiration cytology revealed a cell cluster which consisted of oval or spindle-shaped mononuclear cells with no malignant atypia (Fig 2). No evidence of breast cancer characteristics by either clinical or aspiration cytology examination was detected. Finally, we clinically diagnosed it as a phyllodes tumor. Extirpation of the tumor was carried out for histological examination on April 27, 1994. Frozen specimens did not yield enough information for diagnosis. Finally, histological findings in paraffin-embedded sections revealed angiosarcoma of the breast. Further extended surgery was recommended but the patient refused. On October 13, 1994, a local recurrence was found in her left breast. Neither visceral metastases nor bone metastasis were detected, and radical mastectomy was performed on October 26, 1994. No

Fig 1. Ultrasonography demonstrated a round hypoechoic lesion with small depth:width ratio, clear boundary, rough internal echo and enhancement of posterior echo.

Fig 2. Cytological findings by fine needle aspiration biopsy revealed some clusters of oval or spindle cells with hyperchromatic nuclei in the absence of malignant atypia.

Fig 3. Gross appearance of the skin metastasis on the left chest wall. The tumors varied in size and were dark red in color. The tumors bled easily.