



LETTER TO EDITOR

Breast adenosquamous cell carcinoma presented in an intracystic form



KEYWORDS

Neoplasm;
Intracystic;
Adenosquamous
carcinoma;
Isolated tumor cells

To the editor,

We have been your loyal readers for years. We could not agree more with the concepts of primary cystic-type squamous cell carcinoma of the breast (SCCB) proposed by Keiichi Takahashi et al.¹ in your journal. Whatever reviewing of SCCB or diagnosis means were sorted out excellent. What we would like to share is a similar case with moreover valuable characteristics, one is additional adenoid differentiation, another is presentation of isolated tumor cells in sentinel lymph nodes, and the other is our management.

A 67-year-old woman, a postmenopausal mother of three, presented with a non-painful left breast lump incidentally found two days ago. She had no notable medical history, nor family history of breast cancer. Her menstrual cycles had been regular. Physical examinations revealed a firm and movable mass over the inferior portion of her left breast, estimated to be ~40 mm in size. We found no nipple discharge, palpable ipsilateral axillary or supraclavicular lymph nodes. Contralateral breast and axilla were normal. Mammography showed a round mass of high density measuring 36 × 39 mm² (Fig. 1). Ultrasonography of the left breast revealed a 39 mm irregular cystic lesion with angular margin with densities of internal soft tissues (Fig. 2).

Pathological study from core needle biopsy (CNB) revealed fibrocystic changes with focal mild intraductal epithelial hyperplasia. The intracystic fluid obtained appeared to be old hemorrhage.

Partial mastectomy was performed and histology findings were: 33 mm whole lesion inclusive of cystic space, which was almost entirely lined by tumor cells, and the largest intracystic solid mural nodule was 5 mm in size. Metaplastic features of the solid nodules were focal squamous differentiation and focal ductal formation. High grade ductal carcinoma *in situ* (DCIS) with comedo necrosis was noted just around the cystic lesion (Fig. 3).

The Ki-67 labeling index was 25% with no reactivities for estrogen receptor (ER), progesterone receptor (PR) nor the human epidermal growth factor receptor 2 (HER2).

As far as metastasis was concerned, she had negative findings in bone scans and thoracic-abdominal-pelvic computed tomography. Tumor markers like carcinoembryonic antigen (CEA) and cancer antigen 15-3 (CA 15-3) were within normal ranges.

The patient subsequently underwent simple mastectomy with sentinel lymph node biopsy (SLNB), in which isolated tumour cells (ITCs) were detected. The staging determined finally was pTisN0(i+)(sn) M0. We therefore arranged the patient to receive further adjuvant chemotherapy.

Primary cystic-type squamous cell carcinoma of the breast (SCCB), or some called breast primary intracystic squamous cell carcinoma (SqCC) is rare among breast cancers.² It is listed under the category of MBC, according to WHO Classification of Tumours of the Breast, 2012. MBC has typical features of larger tumor size, less nodal involvements, rapid growth and negative stainings of immunohistochemistry for ER, PR and HER2 in majority.³ One

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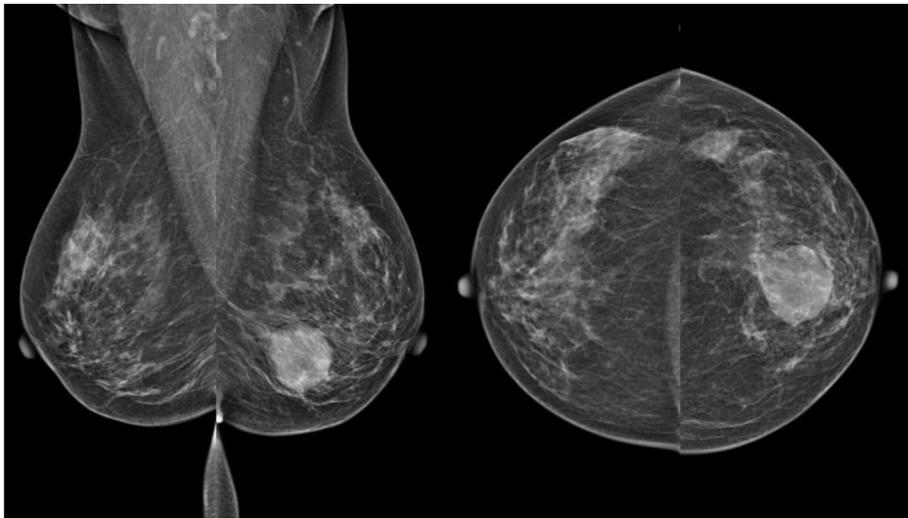


Figure 1 Mammography revealing a high density, homogeneous, round lesion with regular border over the left inferior breast.

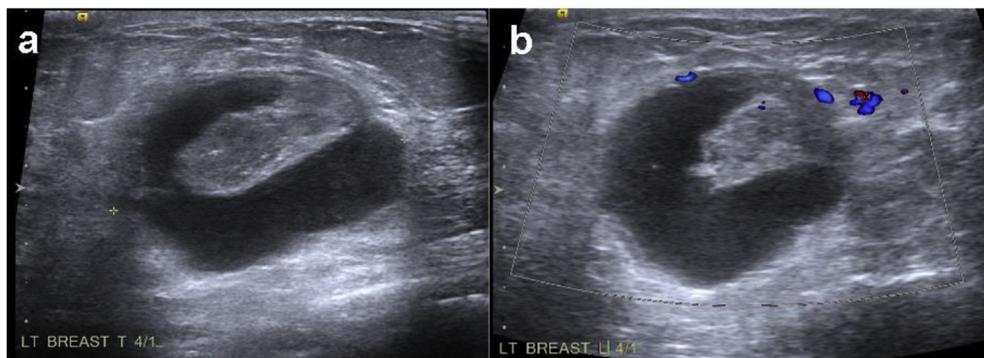


Figure 2 (a) An angular margin cyst with internal soft tissue densities. (b) Color Doppler image showing flow signals.

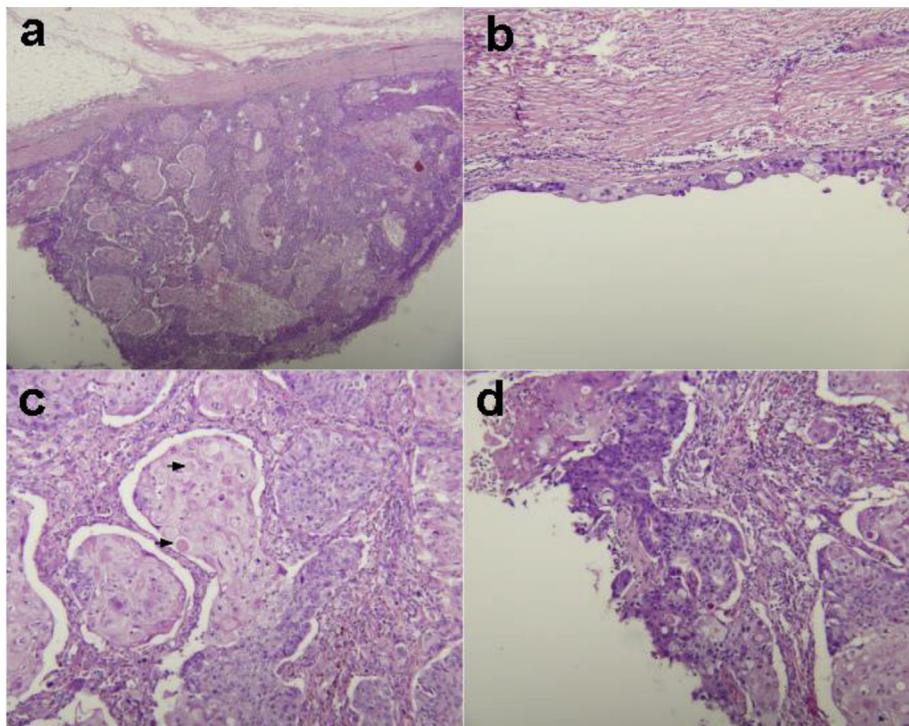


Figure 3 (a) Intracystic mural mass (40X). (b) Malignant cells seen lining the inside of cyst wall (arrow) (100X). (c) Squamoidal changes seen in the mass; typical squamous cell differentiation with some keratinisation (arrow) (100X). (d) Glandular differentiation (100X). All images in H&E stain.

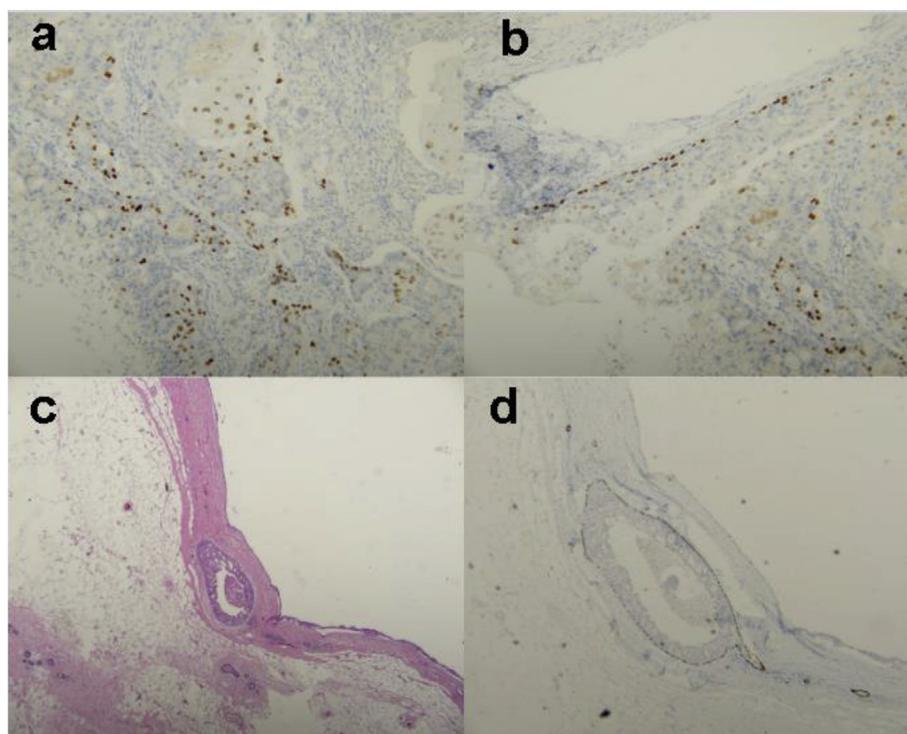


Figure 4 (a) Compared with Fig. 4c, positive immunohistochemical reactions to marker p63 seen on the squamoid part. (b) Positive p63 expression at the external layer of cystic cells with relatively small and uniform nuclear shapes, indicating the preservation of myoepithelial cells. (c,d) DCIS with comedo necrosis and high grade nuclear features. Note positive expressions to p63 staining.

application of the immunohistochemical marker p63 is for ruling out invasions in breast tumors through its restricted presence in myoepithelial cells. The second application is to determine squamous differentiation.⁴ Positive expressions in this patient demonstrated both DCIS and focal squamous cell carcinoma in the form of intracystic tumor (Fig. 4).

Due to its large size, intraductal progression, extramural invasion, lymph nodes metastasis from the intracystic malignancy, the only breast-conserving surgery is less considered. However, SLNB is more appropriate than routine axillary lymph node dissection (ALND) since axillary involvements are not common. At times it may be laborious to diagnose breast intracystic carcinoma using fine needle aspiration or CNB, thus active lumpectomy is more desirable.

The most interesting characteristic of the present case is that it had shared the same clinical features of MBC, like large tumor size, rapid growth and negativities to HR and HER2 stainings, as well as the coexistence with DCIS.

Preoperative axillary ultrasound and SLNB were used to stage the clinically node-negative breast tumors. Routine ALND is not recommended because there is low risk in axillary metastasis, and it would not improve survival of those patients with limited sentinel lymph node (SN) involvements. What is more important is the further adjuvant systemic therapy in the presence of ITCs in the SNs, because the presence of ITCs is considered as a prognostic factor influencing both the overall and breast cancer-specific survival.⁵ Thus, the patient then received 4

courses of epirubicin and cyclophosphamide, and followed by 4 courses of taxane. The treatment was in accordance with the NCCN guideline for locally advanced breast cancer.

Intracystic adenosquamous carcinoma are rare, lacking related study looking into managements and longterm outcome. Isolated tumor cells in SLNB classified in N0 in current AJCC guideline, and share same treatment in NCCN guideline, but actually the outcomes may be different. Thus we suggested deal the patient with adjuvant chemotherapy as locally advanced breast carcinoma. We need more study in long-term response and survival for patients suffering from intracystic adenosquamous cell carcinoma.

Conflicts of interest

All authors declare there is no conflict of interest.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.asjsur.2019.02.005>.

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