Clinical Note

Advanced breast cancer associated with atypical cells in accessory breast

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Accessory (ectopic) breast tissue may be seen along the milk line which extends from the axillae to the groins. It is subjected to hormonal changes similar to those of the normal breast including lactational, benign, and malignant changes. A middle aged woman with a stage III breast carcinoma and an axillary mass thought to be a lipoma is presented.

A 50-year-old multiparous housewife was referred to the surgical outpatient clinic (SOPD) with a 2-year history of ulcerated and fungating right breast mass. She was diagnosed with stage I breast carcinoma 6 months earlier at the referral hospital and counseled for mastectomy, which she rejected. She opted for traditional medication with herbs and incisions. Clinical examination at the SOPD revealed a stage III right breast carcinoma with discreet right lymph node enlargement and a left soft axillary mass thought to be a lipoma. She was sent to the histopathology laboratory for fine needle aspiration cytology of the breast and axillary masses to determine type and extent of tumor spread.

Fine needle aspiration biopsy of the breast mass, a right discreet lymph node and well circumscribed soft lobulated left axillary mass measuring 10 x 6 cm in diameter was carried out. The axillary swelling yielded 1 ml of whitish aspirate. Aspiration of the right breast and discreet right axillary nodes each yielded 0.5 ml of blood stained aspirate. Cytology of the breast and right axillary nodes showed malignant cells consistent with ductal carcinoma of the breast (**Figure 1**). The left axillary mass cytology showed clusters of atypical ductal epithelial cells with background homogenous material (**Figure 2**).

Accessory breast results from incomplete involution of the milk lines.[1] Its incidence varies among ethnic groups though more common in Asian women.[2] Its occurrence in women is estimated at 2-6% and 1-3% in men.[3-5] Kajava[6] classified accessory breast based on the presence or absence of areola with or without nipple. This patient had glandular tissue only, which is a class IV category. Most accessory breast have no physiologic importance but may undergo changes at puberty, pregnancy, lactation or may be the site of carcinoma due to hormonal influences as seen in the normal breast.[4] Approximately 67% of cases occur on the left side of the body in the thoracic or abdominal part of the milk line, while only 20% is seen in the axilla.[4] Our patient first noticed the axillary mass with her first pregnancy and the size increased in subsequent pregnancies. The mass was also associated with mild discomfort during lactations. Advanced breast carcinoma coexisting with adenosis and fibrocystic changes in an axillary accessory breast has been reported.[7] The presence of atypical ductal cells is worrisome in this patient as it may become malignant.

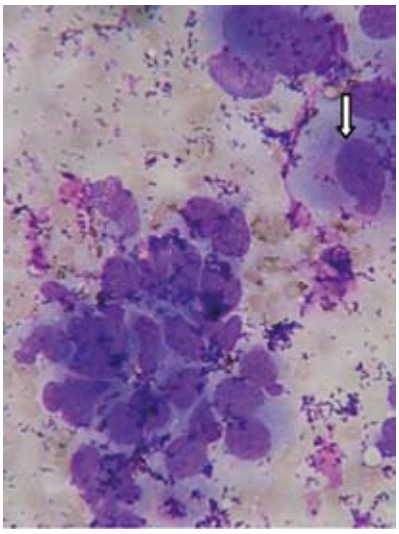

Figure 1 - Malignant ductal cells from the breast.

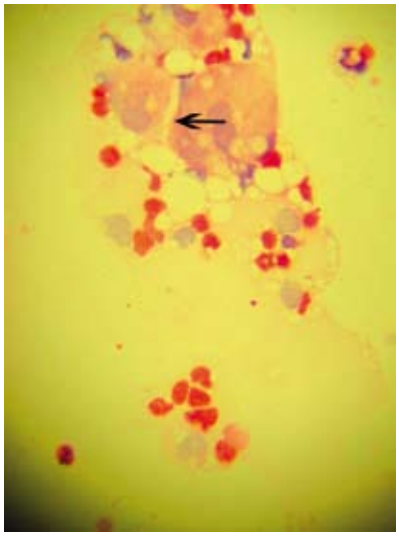

Figure 2 - Atypical ductal cells in the accessory breast.

Accessory breast may be a cause for misdiagnosis from lipoma as in this case. Other causes of misdiagnosis include sebaceous cyst and axillary lymphadenopathy due to reactive inflammatory or malignant diseases. Fine needle aspiration cytology is important in the initial work up of patients.

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References

1. Warwick R, Williams PL, editors. Mammary Glands in Nervous system and Special Sense Organs. In: Gray's Anatomy. 35th ed. Longman Group Ltd Edinburgh; 1973. p. 126.
2. Gilmore HT, Milroy M, Mello BJ. Supernumerary nipples and accessory breast tissue. ***S D J Med*** 1996; 49: 149-151.
3. Johnson CA, Felson B, Jolles H. Polythelia (supernumerary nipple): an update. ***South Med J*** 1986; 79: 1106-1108.
4. Revis DR Jr., Caffee HH. Breast embryology. eMedicine [Last updated on 2006 Mar 10].
5. Down S, Barr L, Baildam AD, Bundred N. Management of accessory breast tissue in the axilla. ***Br J Surg*** 2003; 90: 1213-1214.
6. Kajava Y. The proportion of supernumerary nipples in the Finnish population. ***Duodecim*** 1915; 31: 143-170.
7. Kitamura K, Kuwano H, Kiyomatsu K, Ikejiri K, Sugimachi K, Saku M. Mastopathy of the accessory breast in the bilateral axillary regions occurring concurrently with advanced breast cancer. ***Breast Cancer Res Treat*** 1995; 35: 221-224.

References

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