· Advances in Medical Sciences · Vol. 54(2) · 2009 · pp 308-310 · DOI: 10.2478/v10039-009-0031-6

Cancer of the accessory breast – a case report

Madej B[1,2*], Balak B[1], Winkler I[2], Burdan F[2]

1 Department of General Surgery and Sub-department of Surgical Oncology, Cardinal Rev. Wyszyński's Voivodship Specialistic Hospital, Lublin, Poland
2 Human Anatomy Department, Medical University of Lublin, Lublin, Poland

* CORRESPONDING AUTHOR:
Human Anatomy Department,
Medical University of Lublin
4 Jaczewskiego Street
20-950 Lublin, Poland
phone: +48817423678; mobile: +48509593545
e-mail: basia.madej@interia.pl (Barbara Madej)

Received 18.05.2009
Accepted 11.08.2009
Advances in Medical Sciences
Vol. 54(2) · 2009 · pp 308-310
DOI: 10.2478/v10039-009-0031-6

ABSTRACT

Breast neoplasm may develop in ectopically located glandular tissue. This paper presents an interesting and rare case of a 50-year-old female who despite regular mammography screening examination developed an invasive accessory breast cancer. Clinical examination revealed a 2 cm – tumour localized 4 cm below the left inframammary fold. The lesion was immobile, the skin and the atrophic nipple were retracted, the tumour infiltrated the thoracic wall. Oligobiopsy and additional examinations showed an invasive stage IIIB ductal breast cancer (Bloom II, G-2). The receptor status was: ER(+), PGR(+), HER2(-). The increased level of cancer antigen 15.3 was found. The patient was submitted to pre-operative chemotherapy. She also underwent surgery and subsequently post-operative chemotherapy and radiotherapy.
On the basis of the presented case, it could be concluded that the accessory mammary glands are out of the image of screening breast examinations. Accessory breast cancer is usually diagnosed by clinical examination and ultrasonography. Preventive resection of accessory breast in women at high risk of developing breast cancer can be considered as the treatment of choice in most patients.

Key words: accessory breast cancer, screening mammography, breast ultrasonography

INTRODUCTION

Breast gland developmental abnormalities affect 0.4-6% of general population [1]. The anomalies may manifest as supernumerary nipples (hyperthelia) or accessory mammary glands (polymastia). The nipples or breasts usually occur along the so called milkline, between the armpit and anterior thigh [2-4]. Accessory breast tissue is usually situated in the axilla. However, the presence of ectopic breast tissue has been described even in the vulva [5, 6]. In case of pathological changes – mostly acute inflammation, pre-menstrual enlargement and neoplasm, such localization predicts unusual clinical symptoms such as arm pain and difficulties with upper limb mobility [7]. Moreover, a complete differential diagnosis including lymphatic system and soft tissue neoplasms is required [8].

Generally, accessory breasts do not come under screening examination. The patients are usually unaware of the fact that the skin thickening may be an accessory breast.

This paper describes an interesting and rare case of a female who despite regular mammography screening examination developed an invasive accessory breast carcinoma. Although the patient underwent breast examination, the tumor of accessory breast was detected by chance and only in stage III B.

CASE PRESENTATION

A 50-year-old female had come under regular screening mammography examinations (MMG). No pathological changes had been discovered. However, during additional echocardiography examination done by other clinical circumstances, a thickening under left mammary gland was found and the patient was directed to Surgical Oncology Clinic. Clinical examination revealed a tumour in the accessory mammary gland. 2-cm-lesion was localized 4 cm below the left inframammary fold. The tumour was immobile, the skin and the atrophic nipple were retracted, the tumour infiltrated the wall of the thoracic cavity (*Fig.1*).

Figure 1. **Macroscopic image of accessory breast cancer.**

The ultrasonography examination (USG) of the tumor showed a 1.6x2.2 cm hypoechogenic lesion with irregular and blurred contours infiltrating greater pectoral muscle (*Fig. 2*). No signs of enlarged lymph nodes were identified above clavicle or in the axilla. On clinical examination and imaging (mammography and ultrasonography) no pathological changes in the breast were seen. Radiography for breast lesions, abdominal ultrasonography and skeleton scintigraphy showed no abnormalities. Increased level of neoplasm marker 15.3 (CA 15.3) was revealed, though. Findings obtained at oligobiopsy helped to establish the diagnosis: invasive ductal cancer, Bloom II, G-2, steroid receptor status: ER(3+) (90% of positively staining cells), PGR(3+) (95% of positively staining cells), no evidence of receptor HER2 hyperexpression, (immunochemical reaction to HER2 receptor 1+).

The patient was submitted to 5 courses of TAC chemotherapy (docetaxel – 120 mg, doxorubicin – 80 mg, cyclophosphamide 80 mg) every 3 weeks. Partial regression of tumor was observed. After therapy, the tumor measured 1 cm. Then, the woman was treated surgically. An accessory breast gland and the part of adjoining pectoral major muscle were removed. At the same time, sentinel lymph node biopsy was performed. In intra-operative examination metastases to sentinel node were found and therefore radical axillary lymphadenectomy was carried out. In post-operative course no complications were observed. The result of final pathological examination was: pT4N1M0. The patient was qualified for chemotherapy (2 courses) as well as post-operative radiotherapy and hormonotherapy (once-daily oral dose of tamoxifen 20 mg).

At present, the patient is still undergoing her second and last course of adjuvant TAC chemotherapy and she is being given the same chemotherapy doses as in the pre-operative period. Her radiotherapy was scheduled to begin in about two weeks.

DISCUSSION

Accessory breast cancer is rarely described. However, Fama et al. [1] reveled 5 cases of breast cancer from among 208 examined accessory mammary glandules. Normally, the

Figure 2. **USG image of accessory breast cancer.**

neoplasm in such non-typical localization is diagnosed late, in advanced clinical stage of the disease. The small size of the gland enables fast infiltration into the skin and the thoracic wall as well as formation of lymph node metastases. Owing to the fact that the accessory gland may be situated in various areas of the body, the lymph may flow through different nodule groups including axillary and inguinal lymph nodes [9].

Diagnostic procedure and therapeutic management in patients with accessory breast cancer are not unequivocally established [2]. In the case presented above, treatment strategy was based on pre-operative chemotherapy accompanied by surgical treatment, post-operative chemotherapy, radiotherapy and hormonotherapy. However, therapeutic options should also be customised to target an individual patient. Surgery should always be accompanied by sentinel node biopsy. The question arises whether the breast located on the same side as the accessory breast should be removed as well. In our opinion, in case of the accessory breast being situated very close to normal breast and connected with it, the indications for surgery should be the same as in tumour of anatomically situated breast. On the other hand, when the accessory gland constitutes a separate anatomical structure the resection of normal breast appears to be unnecessary.

Some authors describe cases of synchronous breast cancer in normal and accessory breast as well as hidden carcinoma [7, 10]. Furthermore, cases of patients with cancer of the accessory breast in groin or vulva have been reported [7, 5, 11]. In such cases therapeutic strategy should be determined individually, for the scope of resection surgery differs from the standardized one and may affect even the inguinal lymph nodes [9].

In the high-risk group, the problem of accessory breast diagnosis becomes particularly important. Women at high risk of developing breast cancer undergo regular examinations of anatomically situated breast but accessory breasts do not come under screening examination. In our opinion, the necessity of preventive resection of ectopic breast tissue should be considered in these women.

CONCLUSIONS

Since accessory breast is out of the image of mammography, additional diagnostic methods are required. Accessory breast cancer is usually diagnosed by clinical examination and ultrasonography. Preventive resection of accessory breast in women at high risk of developing breast cancer can be considered as the treatment of choice in most patients.

REFERENCES

1. Famà F, Gioffrè Florio MA, Villari SA, Caruso R, Barresi V, Mazzei S, Pollicino A, Scarfò P. [Breast abnormalities: a retrospective study of 208 patients] Chir Ital. 2007 Jul-Aug;59(4):499-506.

2. Hatada T, Ishii H, Sai K, Ichii S, Okada K, Utsunomiya J. Accessory breast cancer: a case report and review of the Japanese literature. Tumori. 1998 Sep-Oct;84(5):603-5.

3. Howard BA, Gusterson BA. Human breast development. J Mammary Gland Biol Neoplasia. 2000 Apr;5(2):119-37.

4. Lippert H. Anatomia. 1st ed. Wroclaw (Poland): Wydawnictwo Medyczne Urban & Partner; c1998. Chapter 2.5, Gruczol piersiowy; p. 144-53.

5. Das S, Roy AK, Kar C, Giri PP. A rare case of fibrocystic disease at vulval accessory breast tissue. J Indian Med Assoc. 2007 Nov;105(11):652-3.

6. Irvin WP, Cathro HP, Grosh WW, Rice LW, Andersen WA. Primary breast carcinoma of the vulva: a case report and literature review. Gynecol Oncol. 1999 Apr;73(1):155-9.

7. Capobianco G, Spaliviero B, Dessole S, Rocca PC, Cherchi PL, Ambrosini G, Meloni F, Meloni GB. Lymph node axillary metastasis from occult contralateral infiltrating lobular carcinoma arising in accessory breast: MRI diagnosis. Breast J. 2007 May-Jun;13(3):305-7.

8. Solanki R, Choksi DB, Duttaroy DD. Accessory breast tissue presenting as a large pendulous mass in axilla: a diagnostic dilemma. N Z Med J. 2008 Jul 4;121(1277):76-8.

9. Thorne AL, Jackson A, Yiangou C. The use of sentinel node biopsy in the treatment of cancer of an accessory breast. Breast. 2003 Apr;12(2):153-5.

10. Intra M, Maggioni A, Sonzogni A, DE Cicco C, Machado LS, Sagona A, Talakhadze N. A rare association of synchronous intraductal carcinoma of the breast and invasive carcinoma of ectopic breast tissue of the vulva: case report and literature review. Int J Gynecol Cancer. 2006 Jan-Feb;16 Suppl 1:428-33.

11. Dordević M, Javanović B, Mitrović S, Dordević G. Ectopic mammary tissue in vulva. Vojnosanit Pregl. 2008 May;65(5):407-9.