The Breast Journal

LETTER TO THE EDITOR

Supernumerary Axillary Breast Cancer

To the Editor:

This case report presents an opportunity to discuss the treatment of supernumerary breast cancer which is seldom mentioned in the surgical literature, and suggests some novel therapeutic considerations. Supernumerary breast may present characteristics analogous to normal breast tissue in terms of function and, more importantly, pathologic degeneration although treatment option can differ (1). We describe a case of supernumerary axillary breast cancer who needed a reconstruction with latissimus dorsi flap.

Accessory breast tissue has a very rare incidence in population with incidence rates of 1–2%. Furthermore, having an accessory breast with concurrent breast cancer is extremely rare with only few articles published in the literature (2).

The exact incidence of breast cancer in supernumerary breast tissue is unknown but estimates range in 0.3–0.6%.

Both the rarity of the pathology and its sometimes unusual clinical presentation of lumps without nipple-areola-complex makes diagnosis very challenging, and the first contact physician is not often including supernumerary breast cancer as part of the differential diagnosis (3).

The approach to supernumerary breast cancer should follow the same sequence of clinical examination, mammography, sonogram, and fine-needle aspiration cytology or core needle biopsy as performed usually for anatomic breast cancer. Standard mammograms do not usually show axillary supernumerary breast because of its high location, but with special positioning of the patient, however, ectopic breasts are sometimes imaged.

Therapeutic options are also based on standard breast cancer treatment of anatomic breast. Surgical removal is the mainstay of treatment with either mastectomy or wide local excision for a conservative approach, and axillary staging with sentinel lymph node biopsy according to actual evidences (4–7).

Some authors recommended radical mastectomy of the ipsilateral breast if the regional lymph nodes are diagnosed with carcinoma (8). However, Evans and Guyton (9) concluded that ipsilateral mastectomy in addition to axillary lymph node dissection was not superior to local excision with node dissection. Thus, it has been proposed that the surgical procedure of choice for ectopic breast carcinoma is wide local excision of the tumor including the skin and the surrounding supernumerary breast tissue, sentinel lymph node sampling and axillary clearance if appropriate (1). Mastectomy of the ipsilateral normal breast gland is not indicated if clinical examination, mammography, and ultrasound of the anatomic breast show no signs of disease, and should only be considered in cases where the differential diagnosis is confusing (2).

In all cases careful follow-up is necessary to exclude any late manifestation of an occult primary neoplasm of the breast. Postoperative adjuvant therapy should be based on clinical stage, tumor biology, and patients characteristics. Radiotherapy, chemotherapy regimens, antibodies, and endocrine therapy are usually based on standard treatment for anatomic breast cancer. The exact prognosis of such cases is not known due to the limited data on follow-up and sample size.

We discuss a case of a 42-year-old female with cancer arising in supernumerary breast. The patient was seen in our Institution because of complaint regarding a mass located in her right axilla. At her clinical examination a ≈2 cm hard mass with irregular borders in the right supernumerary breast was detected (Fig. 1). Imaging with mammography and high definition ultrasound revealed a suspicious 1.5 cm hypoechoic mass in the right supernumerary breast, with increased vascularity. The rest of the glandular breast tissue appeared to be normal. Fine-needle aspiration cytology of the tumor was performed, resulting in a C5 category lesion. An interdisciplinary team approach recommended wide local excision of the mass including the involved supernumerary breast,

Address correspondence and reprint requests to Antonio Toesca, Division of Breast Surgery, European Institute of Oncology, Via Ripamonti 435, 20141 Milano, Italy, or e-mail: antonio.toesca@ieo.it

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sentinel lymph node biopsy and excision of the contralateral supernumerary breast. Immediate reconstruction with local advancement flaps using the latissumus dorsi muscle and the anatomic breast was proposed and agreed by the patient. The patient underwent wide local excision with an upper outer quadrantectomy. Sentinel node biopsy revealed 2 metastatic lymph nodes and I–III level axillary clearence was performed as routinely done in our Institution. Reconstruction of the defect was primarly achieved by dissecting the latissimus dorsi muscle to cover the defect (Fig. 2). Lateral and posterior undermining of the subcutaneous tissue was performed through the same axillary incision to reach the latissimus dorsi muscle, the pedicle was identified and a 15 cm flap was mobilized sparing the skin at the dorsal aspect. Advancement of the latissimus dorsi flap was performed without any rotation and it was attached to the lateral border of the major pectoral muscle and inferiorly to the serratus. In this way both adequate coverage of the defect and free movement at the level of the armpit and shoulder was accomplished. Postoperative course was uneventful and the patient was discharged from the hospital the following day. The final pathologic report revealed a pT1c (m) 1.9 cm invasive lobular carcinoma, grade 2, negative margins, pN1a with 2 sentinel lymph nodes positive for metastasis and 25 lymph nodes free of disease. Hormonal status showed receptor positivity for ER 95%, PgR 95%, negative Her-2/neu and Ki-67 19%. The contralateral supernumerary breast was negative of cancer.

Our patient received both adjuvant endocrine therapy and external beam radiotherapy to further increase the local control of the disease and diminish the local recurrence rate.

The patient continued adjuvant therapy with intramuscular LH-RH analogue and tamoxifen for 5 years.

Figure 1. The right axilla showing the areola and nipple.

Figure 2. Latissimus dorsi flap for covering of the defect.

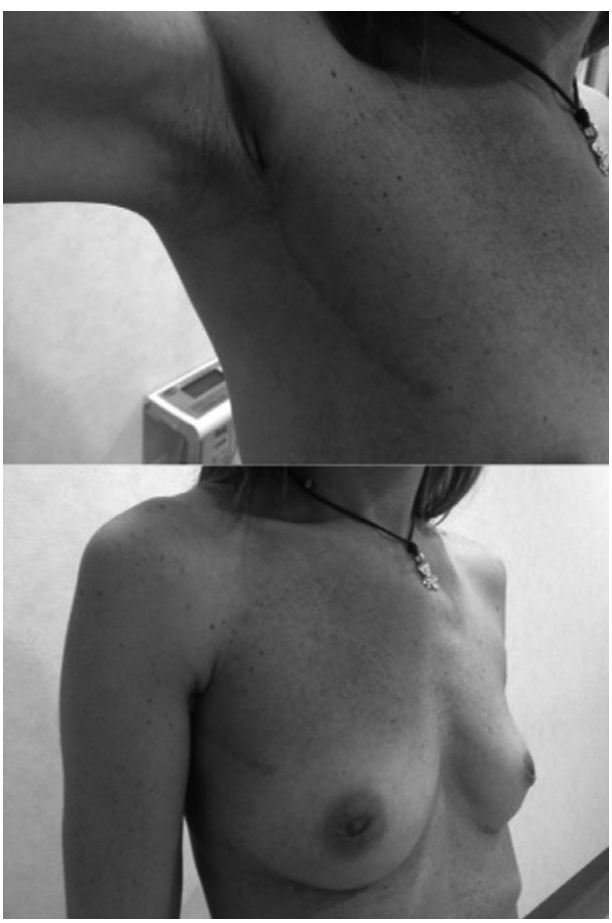

Figure 3. postoperative outcome.

Radiotherapy was delivered at the whole breast and axillary region until completing 45 Gy. After 15 months of follow-up the patient has no evidence of recurrent disease, free movement and rotation of her right arm-shoulder is functional and she refers a good cosmetic outcome (Fig. 3).

Supernumerary axillary breast cancer is very rare. This entity can be easily misdiagnosed if not considered in the differential diagnosis. Management can be oriented using conventional guidelines and treatment protocols for anatomic breast cancer. Reconstructive techniques can be accomplished by using local flaps of healthy breast tissue and the mobilization of the latissimus dorsi muscle for coverage and filling of the space.

Santos Soto, MD*,†
Antonio Toesca, MD*
Alaa Hamza, MD†
Gianni Antonio Della Corte, MD*
Marco Iera, MD†
Nickolas Peradze, MD*
Nicola Rocco, MD‡
Galimberti Viviana Enrica, MD*
Bernardo Bonanni, MD§
Giovanni Corso, MD*
Alberto Luini, MD*
Mario Rietjens, MD†
Francesca De Lorenzi, MD†
Paolo Veronesi, MD*,¶
Stefano Martella, MD†
*Division of Breast Surgery
European Institute of Oncology
Milan
Italy;
and †Division of Plastic and Reconstructive Surgery
European Institute of Oncology
Milan
Italy;
and ‡Department of Clinical Medicine and Surgery
University of Naples "Federico II"
Naples
Italy;
and §Division of Cancer Prevention and Genetics
European Institute of Oncology
Milan
Italy;
and ¶School of Medicine
University of Milan
Milan
Italy

REFERENCES

1. Gao YG, Zhang SH, Wang Y. A case of accessory mammary cancer in a male patient and a literature review. *Eur J Gynaecol Oncol* 2014;35:452–5.

2. Francone E, Nathan MJ, Murelli F, Bruno MS, Traverso E, Friedman D. Ectopic breast cancer: case report and review of the literature. *Aesthetic Plast Surg* 2013;37:746–9.

3. Rocco N, Della Corte GA, Rispoli C, *et al.* Axillary masses in a woman with history of breast cancer: dermatopathic lymphadenopathy. *Int J Surg* 2014;12:S40–3.

4. Botteri E, Gentilini O, Rotmensz N, *et al.* Mastectomy without radiotherapy: outcome analysis after 10 years of follow-up in a single institution. *Breast Cancer Res Treat* 2012;134:1221–8.

5. Marrazzo A, Boscaino G, Marrazzo E, Taormina P, Toesca A. Breast cancer subtypes can be determinant in the decision making process to avoid surgical axillary staging: a retrospective cohort study. *Int J Surg* 2015;21:156–61.

6. Toesca A, Luini A, Veronesi P, Intra M, Gentilini O. Sentinel lymph node biopsy in early breast cancer: the experience of the European Institute of Oncology in special clinical scenarios. *Breast Care* 2011;6:208–14.

7. Gentilini O, Veronesi P, Botteri E, *et al.* Sentinel lymph node biopsy in multicentric breast cancer: five-year results in a large series from a single institution. *Ann Surg Oncol* 2011;18:2879–84.

8. Tjalma WA, Senten LL. The management of ectopic breast cancer – case report. *Eur J Gynaecol Oncol* 2006;27:414–6.

9. Evans DM, Guyton DP. Carcinoma of the axillary breast. *J Surg Oncol* 1995;59:190–5.