

Breast Cancer of the Axillary Extension

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Sir,

Breast cancer of the axillary extension is very infrequently diagnosed early on the tail of Spence – a peripheral extension of breast tissue with a duct system to the axilla – and is commonly confused with other axillary disease (1). We describe here a patient affected with breast cancer originating from the right axillary extension of the mammary tail of Spence, characterized by an unspecific clinical presentation.

CASE REPORT

An 80-year-old woman presented a nodular and partially ulcerated lesion located on her right axilla. The lesion was 2 × 1.2 cm in diameter, fixed to the skin, and was painless (Fig. 1) and had been present for 15 days. Physical examination revealed an extremely adherent lesion, projecting about 2 cm above the skin surface. The patient was afebrile and there were no other signs or symptoms.

An incisional biopsy specimen of the axillary mass revealed the presence of an infiltrating ductal adenocarcinoma extending into the dermis and with pagetoid

diffusion to the epidermis. The axillary tumour was positive to oestrogen and progesterone receptors. The patient was referred to a surgeon who decided on a total mastectomy with lymphadenectomy on the right side. During the mastectomy a connection between the axillary mass and the normal breast was noticed. Pathological examination of the right breast confirmed the presence of an infiltrating ductal carcinoma. Three out of 23 lymph nodes from the right axilla showed a microscopic metastasis.

At 6 months follow-up the patient is still free of disease.

DISCUSSION

During the fourth to sixth week of embryonic development, the mammary milk line extends from the axilla to the groin bilaterally (2). Normally, in human beings, the embryologic mammary ridges have a regression with the exception of two pectoral areas (the breast) (3, 4). The failure of this regression can lead to supernumerary breast tissue or ectopic breast tissue (5).

Axillary breast tissue can be represented by ectopic tissue not connected to the breast; the incidence of this is not clearly known (1.7–6% according to Amsler et al. (6)). It may also be connected to the external part of the thoracic breast; in this case it is called the axillary tail of Spence (7).

Axillary breast tissue, submitted to the same hormonal influences as the thoracic breast, may become evident and even symptomatic during pregnancy, lactation and even during the menstrual period; however, it may remain asymptomatic during the patient's lifetime, as in our case (7). Early diagnosis of primary breast cancer of the axillary tail of Spence is rare because of the difficulty in distinguishing a neoplastic mass from other pathological entities like lipoma, granulomatous lymphadenitis (1), metastatic carcinoma, hidradenitis suppurativa (7), cystic disease and fibroadenoma. The presence of oestrogen and progesterone receptors in a biopsy sample indicates a mammary carcinoma (9). Ultrasound-guided fine-needle aspiration biopsy may be the first step to differentiate benign from malignant lesions. This simple and routine technique allows us to establish the most appropriate treatment for the patient.

Treatment of the axillary cancer of tail of Spence should be similar to the treatment of thoracic breast cancer (10); it consists in wide local excision, regional lymph node dissection and radical mastectomy of the



Fig. 1. Clinical appearance of breast cancer of the axillary extension.

ipsilateral breast if it is involved. Mastectomy is not indicated if the thoracic breast is free of disease (3). As in the case of any breast cancer, a long period of follow-up is necessary.

REFERENCES

1. 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; 84: 603–605.
2. Pardo MS, Silva F, Jiménez BP, Karmelic VM. Mammary carcinoma in ectopic breast tissue. Report of one case. *Rev Med Chile* 2001; 129: 663–665.
3. Routiot T, Marchal C, Verhaeghe JL, Depardieu C, Netter E, Weber B, et al. Breast carcinoma located in ectopic breast tissue: a case report and a review of literature. *Oncol Rep* 1998; 5: 413–417.
4. Shin SJ, Sheikh FS, Allenby PA, Rosen PP. Invasive secretory (juvenile) carcinoma arising in ectopic breast tissue of the axilla. *Arch Pathol Lab Med* 2001; 125: 1372–1374.
5. Evans DM, Guyton DP. Carcinoma of the axillary breast. *J Surg Oncol* 1995; 59: 190–195.
6. Amsler E, Sigal-Zafrani B, Marinho E, Aractingi S. Carcinome mammaire ectopique primitif axillaire. *Ann Dermatol Venereol* 2002; 129: 1389–1391.
7. Greer KE. Accessory axillary breast tissue. *Arch Dermatol* 1974; 109: 88–89.
8. Viera AJ. Breast-feeding with ectopic axillary breast tissue. *Mayo Clin Proc* 1999; 74: 1021–1022.
9. Yerra L, Karnad AB, Votaw ML. Primary breast cancer in aberrant tissue in the axilla. *South Med J* 1997; 90: 661–662.
10. Marshall MB, Moynihan JJ, Frost A, Evans SRT. Ectopic breast cancer: case report and literature review. *Surgical Oncol* 1994; 3: 295–304.