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Clinical note

Axillary web syndrome following sentinel node biopsy for breast cancer☆

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ABSTRACT

A 49 year-old woman diagnosed with infiltrating lobular breast carcinoma, underwent a right mastectomy and sentinel node biopsy (SLNB). The resected sentinel lymph nodes were negative for malignancy, with an axillary lymphadenectomy not being performed. In the early post-operative period, the patient reported an axillary skin tension sensation, associated with a painful palpable cord. These are typical manifestations of axillary web syndrome (AWS), a poorly known axillary surgery complication, from both invasive and conservative interventions. By presenting this case we want to focus the attention on a pathological condition, for which its incidence may be underestimated by not including it in SLNB studies. It is important for nuclear medicine physicians to be aware of AWS as a more common complication than infection, seroma, or lymphoedema, and to discuss this possible event with the patient who is consenting to the procedure.

Síndrome de web axilar secundario a la biopsia selectiva del ganglio centinela en cáncer de mama

Palabras clave:
Biopsia selectiva del ganglio centinela
Cáncer de mama
Síndrome de web axilar
Complicaciones posquirúrgicas

RESUMEN

Paciente de 49 años diagnosticada de carcinoma lobulillar infiltrante de mama derecha, intervenida mediante mastectomía y biopsia selectiva de ganglio centinela (BSGC). Los ganglios linfáticos centinela resecados fueron negativos para malignidad, motivo por el cual no fue necesaria la realización de linfadenectomía axilar. En el periodo posquirúrgico temprano la paciente presentó una sensación de tensión cutánea en el hueco axilar asociada a un cordón palpable doloroso, manifestación típica del síndrome de web axilar (SWA), una complicación poco conocida de las intervenciones quirúrgicas axilares, tanto invasivas como conservadoras. Mediante la presentación de este caso queremos centrar la atención en una entidad patológica cuya incidencia podemos estar infravalorando al no incluirla en estudios prospectivos de BSGC. Es importante que los médicos nucleares seamos conscientes de la existencia del SWA como una posible consecuencia de la BSGC, más frecuente que la infección, el seroma o el linfedema y de que debemos informar a los pacientes que firman el consentimiento.

Introduction

Selective sentinel node biopsy (SLNB) provides adequate lymph node staging for breast cancer, with fewer complications compared to axillary lymphadenectomy. It is currently included in all management guidelines for breast cancer with an increasing number of indications.[1]

Axillary web syndrome (AWS) is a relatively common complication (up to 72% in some series) of axillary interventions, although frequently underdiagnosed. Is commonly observed after axillary lymphadenectomy, however, it can also occur as a result of less invasive procedures such as SLNB.[2]

We report a case in which AWS developed post SLNB/right mastectomy, in a young patient, with no comorbidities. Its importance lies in that is a possible complication of SLNB in breast cancer, which nuclear medicine practitioners often do not have in mind.

Clinical case

49-year-old ex-smoker with a history of bilateral fibrocystic disease and a family history of breast cancer, was diagnosed with infiltrating lobular carcinoma (cytokeratin 19 positive) after vacuum-assisted biopsy of a non-palpable lesion in upper outer quadrant outside right breast, which had been demonstrated in radiological studies (Fig. 1). On physical examination there were no

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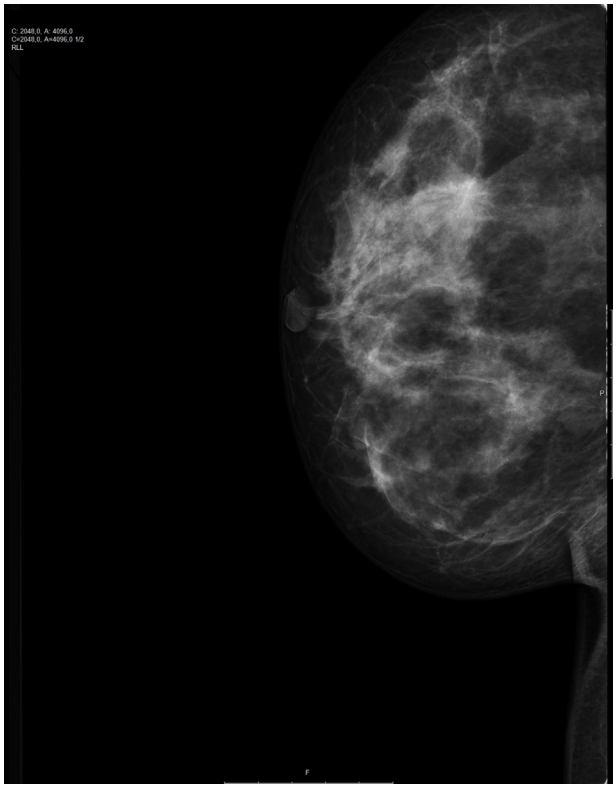

Fig. 1. Mammography. Micro-calcifications in SOQ of right breast, area approximately 1.5 cm.

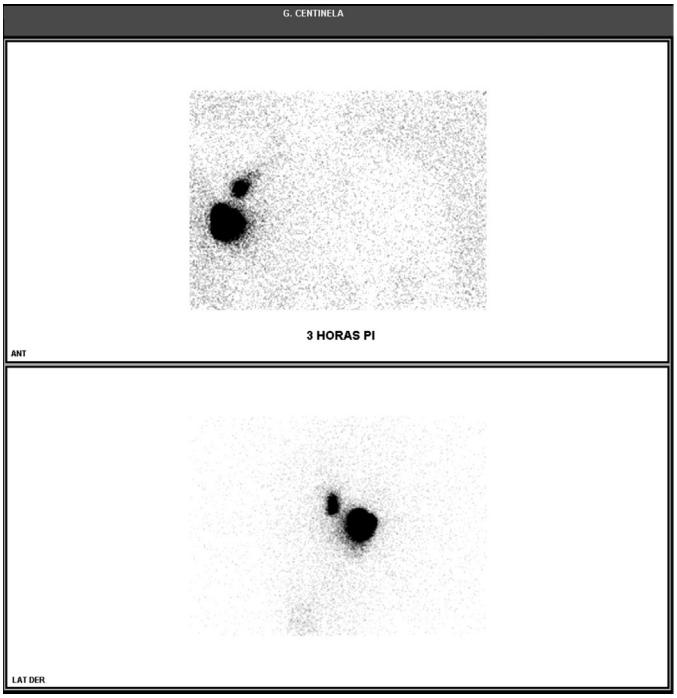

Fig. 2. Lymphoscintigraphy for localization of sentinel node. Anterior projection, right side. The presence of two lymph nodes in the right axillary region is observed.

palpable axillary nodes or suggestions of malignancy in radiological studies. Therefore, the Breast Committee decided to perform SLNB and conservative surgery, however, the patient opted for mastectomy.

The day before surgery, lymphoscintigraphy was performed to determine the lymphatic drainage and locate the sentinel node using 111 MBq the (3 mCi) of ^{99m}Tc-nanocolloidal. In the images acquired 2 contiguous axillary hot-spots in relation to the potential sentinel nodes were discovered (Fig. 2). During surgery, the SLNB was carried out and 4 sentinel nodes were removed, they were analyzed intraoperatively using the OSNA method and were negative for malignancy, so it was not necessary to carry out the axillary lymphadenectomy.

In the same surgical procedure a right mastectomy was performed and the final outcome of the pathology of the primary tumour was a positive 20 mm infiltrating lobular carcinoma, grade 2, low proliferation index (Ki67), Her2 neu negative, ER and positive RP (molecular diagnosis: luminal A). No evidence of perineural invasion was found, but a little vascular invasion was recorded. The final diagnosis was lobular breast carcinoma stage I (T1, N0, M0). Due to the boundary size of the lesion between T1 and T2, the young age of the patient and vascular invasion, it was decided that chemotherapy would be undertaken.

The evolution during the immediate postoperative period was favourable, showing no complications, and was discharged with drainage. In follow-up visits, the patient described the emergence of "a cord" located in the right axilla, moderately restricting movement and associated with feeling of skin tension and pain (Fig. 3). In the anamnesis the possibility of a traumatic event associated discarded. On physical examination, a very painful, not inflammatory fibrous band extending from the axilla towards the right arm (on the side ipsilateral to surgery) was palpated. The presence of oedema of right upper limb was not found.

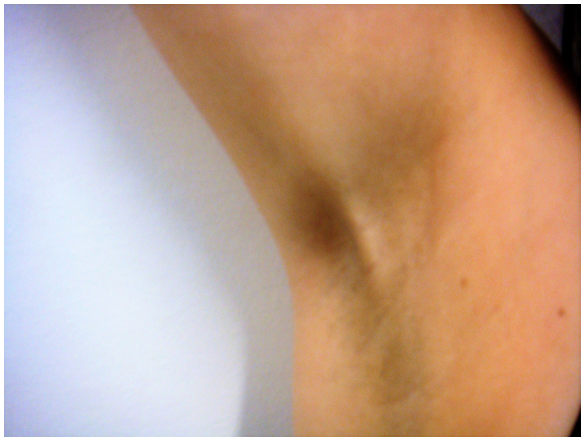

Fig. 3. Photograph of the right axillary region of the patient, in which the "cord" described is displayed.

The clinical picture was listed as an AWS and treatment began with analgesia and physical therapy in the Rehabilitation Ward in order to ease symptoms. The patient continued with its established systemic treatment with no further complications. In subsequent checks it was found that the palpable fibrous band had completely disappeared (Fig. 4) and there was no functional impairment of the arm or in the armpit.

Discussion

In the scientific literature on axillary lymphadenectomy and postoperative morbidity, complications such as chronic lymphedema are seen, with a variable incidence between 2 and 37%. Similarly, other complications (loess than 10% incidence) are mentioned, such as infections of the surgical site, seroma, nerve injury, limiting arm joint balance and axillary vein thrombophlebitis. AWS is not usually taken into account, however, it is more common than these, with a variable incidence depending on the type of axillary