Case Report

Double drainage to distinct lymphonodal basins detected by sentinel lymph node biopsy in cutaneous melanoma patients - Report of two cases*

*Dupla drenagem para cadeias linfonodais distintas, detectada por técnica de biópsia de linfonodo sentinela em pacientes com melanoma cutâneo - Relato de dois casos**

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Abstract: The main merits of sentinel lymph node biopsy in patients with cutaneous melanoma reside in the possibility of avoiding unnecessary radical nodectomies and of allowing a correct identification of the lymphatic draning basin, specially when the tumor is located in areas of ambiguous drainage. It is currently incorporated as a prognostic factor, being important for correct staging of the patient. This paper reports two cases in which the use of this technique was extremely useful, above all for having identified the presence of lymphatic drainage for two distinct basins. It is important for dermatologists to be aware of the correct indication of such technique, in order to guide patients in the best possible manner.
Keywords: Sentinel lymph node biopsy; Radionuclide imaging; Melanoma; Skin neoplasms; Medical oncology

Resumo: ***Os principais méritos da biópsia de linfonodo sentinela em pacientes com melanoma cutâneo residem na possibilidade de serem evitadas linfadenectomias radicais desnecessárias e de permitir a correta identificação da cadeia de drenagem linfática, principalmente quando o tumor se localiza em áreas de drenagem ambígua. Atualmente já foi incorporada como fator prognóstico, sendo importante dado para o correto estadiamento do paciente. No presente relato são apresentados dois casos em que a utilização desta técnica foi extremamente útil, sobretudo por ter identificado a presença de drenagem linfática para duas cadeias linfáticas distintas. É importante que o dermatologista esteja consciente da correta indicação da técnica, para poder orientar da melhor forma possível seus pacientes.***
Palavras-chave: Biópsia de linfonodo sentinela; Cintilografia; Melanoma; Neoplasias cutâneas; Oncologia

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INTRODUCTION

Sentinel lymph node biopsy technique (SLNB) has been increasingly employed in the treatment of cutaneous melanomas (CM). Although CM metastases are known to not always spread through the lymphatic route, because they may also use the blood stream to disseminate, and that other factors are likely to alter CM prognosis, which are facts that limit the absolute validity of BLNS as a predictive factor of evolution and survival, the method has undeniable advantages, which makes it an indication for an increasing number of CM patients.[1,2] One of its main merits resides in the possibility of avoidance of unnecessary nodectomies.[3,4] Correct identification of lymphatic draining basin is another strong point of the method, mainly when the tumor is located in areas of ambiguous drainage. This paper reports two cases in which the use of SLNB technique was extremely useful, above all for having identified the presence of lymphatic drainage for two distinct basins. Surgical approach of both basins would be, at least theoretically, more effective in detecting possible metastatic foci, thus allowing better staging and therapy.[5]

CASE REPORTS

Case 1

32 year-old female patient, referred to the service with recent history of a nevic lesion resection from anterior abdominal wall, immediately above the navel (Figure 1). Anatomopathological examination revealed an extensive superficial CM, with Breslow of 1 mm and Clark level III. There were no signs of regression, vascular or neural invasion. Physical examination revealed an obese patient, presenting hundreds of nevic lesions spread through all skin (Figures 1 and 2). Patient reported family history of CM (father), thus suggesting a case of familial atypical nevus syndrome. She presented a 3cm long linear scar, on the medial line of the abdominal wall, a few centimeters above the navel (Figure 1). No palpable lymph nodes were identified in any draining basins. SLNB and widening of melanoma margins were indicated. Scintigraphic study revealed drainage for both axillae, in a symmetrical fashion (Figure 3A), with two marked lymph nodes on the right.

Bilateral SLNB and widening of melanoma margins (1 cm) of the primary lesion were performed. Histopathological and immunohistochemical examination (HMB 45 and S100) of the sentinel nodes did not reveal a presence of metastatic cells. To our surprise, a new melanoma was detected in a nevic lesion located in the cranial portion of the scar of the first surgery (Figure 1). It was an *in situ* melanoma. Since the widening margin of the first melanoma already reached the 0.5 cm that are advocated for the treatment of a second *in situ* melanoma, a new widening was not needed. Patient completed 18 months of follow-up and is asymptomatic. Dermatoscopic follow-up of remaining lesions was requested. A later exeresis of more five lesions revealed atypical nevi.

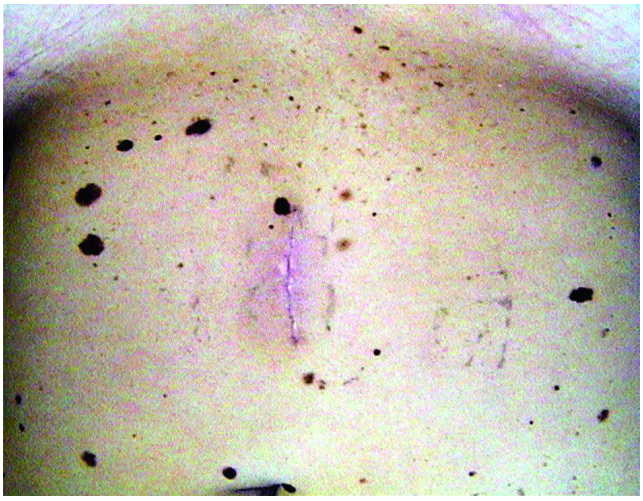


FIGURE 1: Anterior abdominal wall with a 3 cm long linear scar, resultant from previous exeresis of an extensive superficial melanoma with Breslow 1 mm and Clark level III. Note pigmented lesion on upper left portion of the scar, later diagnosed as *in situ* melanoma

Case 2

41 year-old male patient, who had been fol-

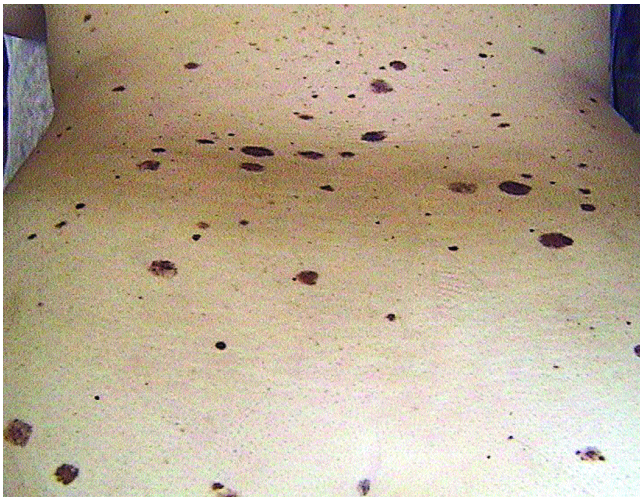
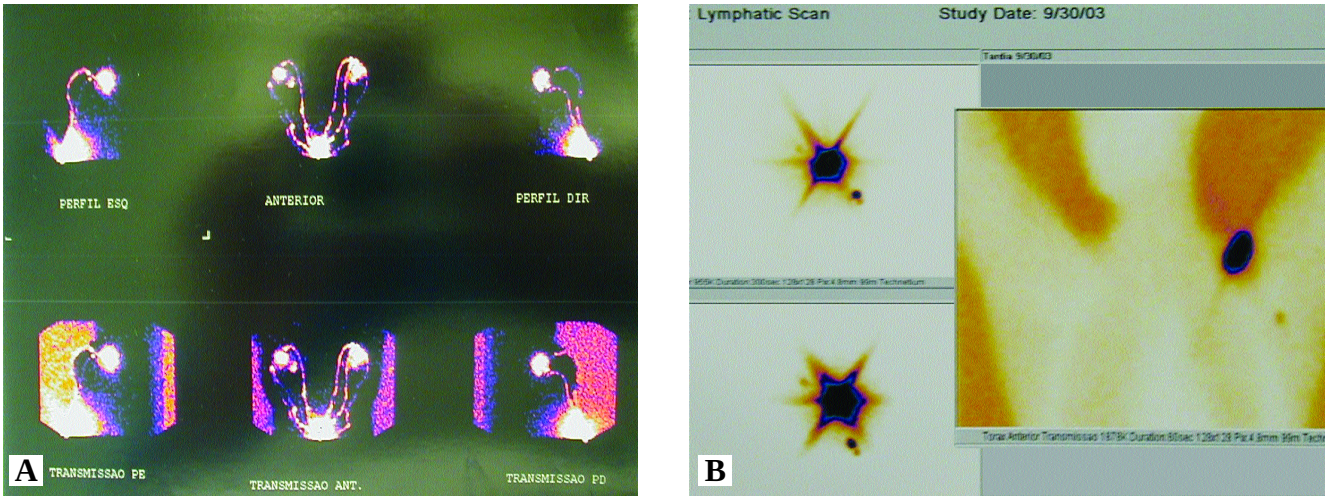


FIGURE 2: Multiple nevi in the patient's skin, with a total of over 100 lesions. This single finding indicates increased risk for melanoma.[16] Patient also had family history (father) of melanoma, thus suggesting a case of familial atypical nevus syndrome



FIGURES 3 A e B: Scintigraphy performed 24 hours prior to surgery, revealing drainage to two distinct lymph node basins: (a) drainage to both axillae. On the right axilla two sentinel lymph nodes were located, and only one on the left; (b) drainage to axilla and cervical region. In both cases the site with highest uptake of radiopharmaco is that of the primary lesion, were the marker was injected

lowed in the service for years, because of basocellular carcinoma (BCC) and actinic keratoses. In a routine visit a nevic lesion was observed in left clavicular region, located about 3 cm above the scar of the previous BCC excision, four years earlier. Clinical hypothesis was of atypical nevus, indicating exeresis of the lesion. An excisional biopsy without safety margins was performed,. Anatomopathological examination revealed an extensive superficial CM, with Breslow 0.8 mm and Clark level III, in vertical growth stage. There were no signs of regression, vascular or neural invasion. No palpable lymph nodes were identified in any draining basins. According to the guidelines of the Grupo Brasileiro de Melanoma (GBM portuguese acronym for Brazilian Melanoma Group),[6] SLNB and widening of surgical margins were both indicated. Scintigraphic study revealed double drainage to left axilla and left cervical regions (Figure 3B), being the drainage to the axilla more intense. SLNB of both lymph nodes and widening of margins (1 cm) of the primary lesion were performed. Histopathological and immunohistochemical examination (HMB 45 and S100) of the sentinel nodes did not reveal the presence of metastatic cells. Post-operatory period evolved with no intercurrences, and patient and family members were guided about the necessity of follow-up.

DISCUSSION

The possibility of lymphatic drainage to more than one lymph node basin and the presence of anomalous drainage are factors that may greatly compromise the efficacy of lymph nodectomy in the treatment of CM. The pattern of lymphatic drainage of certain skin areas is known to be quite variable, even when the well-known Sappey lines are used in clinical evaluation.[7,8] Uncountable reports have demonstrated such variability, whereas others have demonstrated the existence of drainage to more than one lymph node basin, as occurred in the present case.[5,7-10] This report reinforces the usefulness of SLNB technique in MC treatment. Most studies on this issue restrict the indication of SLNB to CM with Breslow thickness equal or greater than 1 mm; however, its utility for CMs with less than 1mm of Breslow thickness has been discussed, and up to 10% of patients with thickness between 0.76 and 1mm are known to have a possibility of presenting positivity in the assessment.[6,11,12]

Identification of a second melanoma in the same patient is not rare, mainly in persons with a great number of nevi, as occurred in the patient described in case 1.[14] Family history, number of nevi and previous history of two melanomas make this patient have a high risk of developing new melanomas, demanding strict control of precursor lesions.[15] ❑

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