Metastatic melanoma misdiagnosed as lipoma manifesting as a subcutaneous soft-tissue mass

Qian An, Jiu-Hong Li, Li Zhang, Hong-Duo Chen, Xing-Hua Gao

Department of Dermatology, The First Hospital of China Medical University, Shenyang, Liaoning 110001, China.

To the Editor: Metastatic melanoma is a fatal disease with rapid systemic dissemination and a 5-year survival rate of about 17%. More than half of primary metastases involve the skin as nodal, subcutaneous, or distant metastasis. Cutaneous metastases of melanoma occur relatively frequently and can arise in early- or late-stage disease, with a variable clinical appearance and pattern distribution. We describe herein a patient with a large subcutaneous nodule on the arm that we initially diagnosed as a lipoma. After obtaining further clinical history and reviewing the pathologic findings after excision, the nodule was determined to represent metastatic melanoma.

A 71-year-old woman presented with an egg-sized, soft, non-tender, subcutaneous nodule on the lateral left upper arm. Ultrasonic examination revealed a hypoechoic nodule in the subcutaneous adipose layer, measuring 4.5 cm × 2.5 cm (Figure 1A). Histopathologic examination of a biopsy specimen was consistent with lipoma. After sterilizing the site and administering local anesthesia, an incision was made about 0.1 cm from the edge of the mass. The mass was dissected completely and determined to be entirely contained in the subcutaneous layer. Gross examination of the tumor showed an ellipsoid, uneven surface with an incomplete envelope surrounding the mass, which measured 5 cm × 3 cm. Sectioning the mass revealed a mixture of colors—grayish-white, grayish-yellow, and grayish-brown—and a rough texture (Figure 1B and 1C).

Three years ago, the patient underwent amputation of her left thumb for malignant melanoma. Given this history, we were highly suspicious that this mass was not actually a lipoma but rather metastatic melanoma. Histopathologic testing confirmed this diagnosis. The tumor cells were spindle shaped, with large oval nuclei, clear nucleoli, many mitotic figures, and a large number of melanin deposits in the cytoplasm. The cells formed a diffuse distribution pattern (Figure 1D). Immunohistochemical staining revealed the mass to be positive for melan A, human melanoma black 45 (HMB-45), S-100 protein, and sry-related HMg-box gene 10 (SOX-10) (Figure 1E1–1E4).

Examination using positron emission tomography-computed tomography revealed multiple metastatic disseminated lesions in the left axillary lymph nodes, the proximal muscles of the left upper extremity, and the lungs. Ultrasound-guided puncture biopsy of an enlarged lymph node confirmed metastatic melanoma with tumor cells arranged in patches, with large, dark nuclei, and visible atypia. The cytoplasm contained melanin, and the structure of the lymph node was destroyed (Figure 1F). Immunohistochemical staining of the lymph node was positive for Melan A, HMB-45, S-100, and SOX-10 (Figure 1G1–1G4). The patient was given subcutaneous α-2b interferon, 3 million units every other day, and followed up every 3 months. She had no adverse reaction to interferon treatment.

Skin metastases of melanoma can present as local recurrences, as in-transit disease, or as distant metastases, depending on the distance from the primary lesion. We report herein a patient with an in-transit metastasis of melanoma that was misdiagnosed as a lipoma before surgery. The reason for this misdiagnosis may be that no actual neoplastic tissue, only a sample of the superficial adipose layer, was obtained on the preoperative biopsy. It is also possible that some normal adipose tissue existed within the mass.

This case highlights the importance of clinical history, of having a high level of suspicion when evaluating any pigmented lesion, and of close follow-up after a diagnosis of melanoma. A very high rate of metastasis occurs in patients with melanoma, even in those who initially present with early stage disease. All patients with early stage melanoma must undergo a strict, thorough, and close follow-up program for at least 2 years after diagnosis. Administration of the bacillus Calmette-Guerin vaccine

Correspondence to: Prof. Xing-Hua Gao, Department of Dermatology, The First Hospital of China Medical University, 155N. Nanjing St., Shenyang 110001, China

E-Mail: gaobarry@hotmail.com

Copyright © 2019 The Chinese Medical Association, produced by Wolters Kluwer, Inc. under the CC-BY-NC-ND license. This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

Chinese Medical Journal 2019;132(14)
and interferon treatment are recommended for patients with in-transit metastasis.\textsuperscript{[5]} Our patient had refused systemic treatment and routine follow-up for 3 years after her initial surgery. Close follow-up and biotherapy are essential for prolonging survival in patients with melanoma.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the article. The patient understands that her names and initials will not be published and due efforts will be made to conceal the identity of the patient, although anonymity cannot be guaranteed.

**Conflicts of interest**

None.

**References**


Corrigendum: Co-existence of \( \text{bla}_{\text{OXA-23}} \) and \( \text{bla}_{\text{VIM}} \) in carbapenem-resistant \( \text{Acinetobacter baumannii} \) isolates belonging to global complex 2 in a Chinese teaching hospital

In the article titled “Co-existence of \( \text{bla}_{\text{OXA-23}} \) and \( \text{bla}_{\text{VIM}} \) in carbapenem-resistant \( \text{Acinetobacter baumannii} \) isolates belonging to global complex 2 in a Chinese teaching hospital,” published on pages 1166-1672, Issue 10, Volume 132 of \( \text{Chinese Medical Journal} \), the corrected Figure 1 could be seen in the linkage http://links.lww.com/CM9/A66.

Reference

DOI:10.1097/CM9.0000000000000307

Obituary

Dr. Chuan-Han Feng, a member of Communist Party of China, leading authority of orthopedics in China, former president of Peking University People’s Hospital, first chairman of Chinese Medical Association Orthopedics Branch, founder of Department of Orthopedics in Peking University People’s Hospital, and former Editor in Chief of \( \text{Chinese Medical Journal} \), passed away on June 16, 2019 at the age of 105.

Dr. Chuan-Han Feng served as the Editor in Chief of \( \text{Chinese Medical Journal} \) from 1985 to 1995. He made great contributions to the development of the journal during and after his position of Editor in Chief in this journal.

Editorial Office of \( \text{Chinese Medical Journal} \)

18-06-2019

DOI:10.1097/CM9.0000000000000361