CASE REPORT : A RARE CASE OF GIANT BASAL CELL CARCINOMA AND MALIGNANT MELANOMA

Izzo L. *, Izzo S.* , Pugliese F.*, Izzo P.*

*Università degli Studi di Roma "La Sapienza"
Viale del Policlinico 155 , 00121, Rome, Italy

Corresponding authors
Luciano Izzo
Dipartimento di Chirurgia "P. Valdoni"
Università degli Studi di Roma "La Sapienza"
luciano.izzo@uniroma1.it
Via G.Tomasi di Lampedusa 9,00144, Rome, Italy

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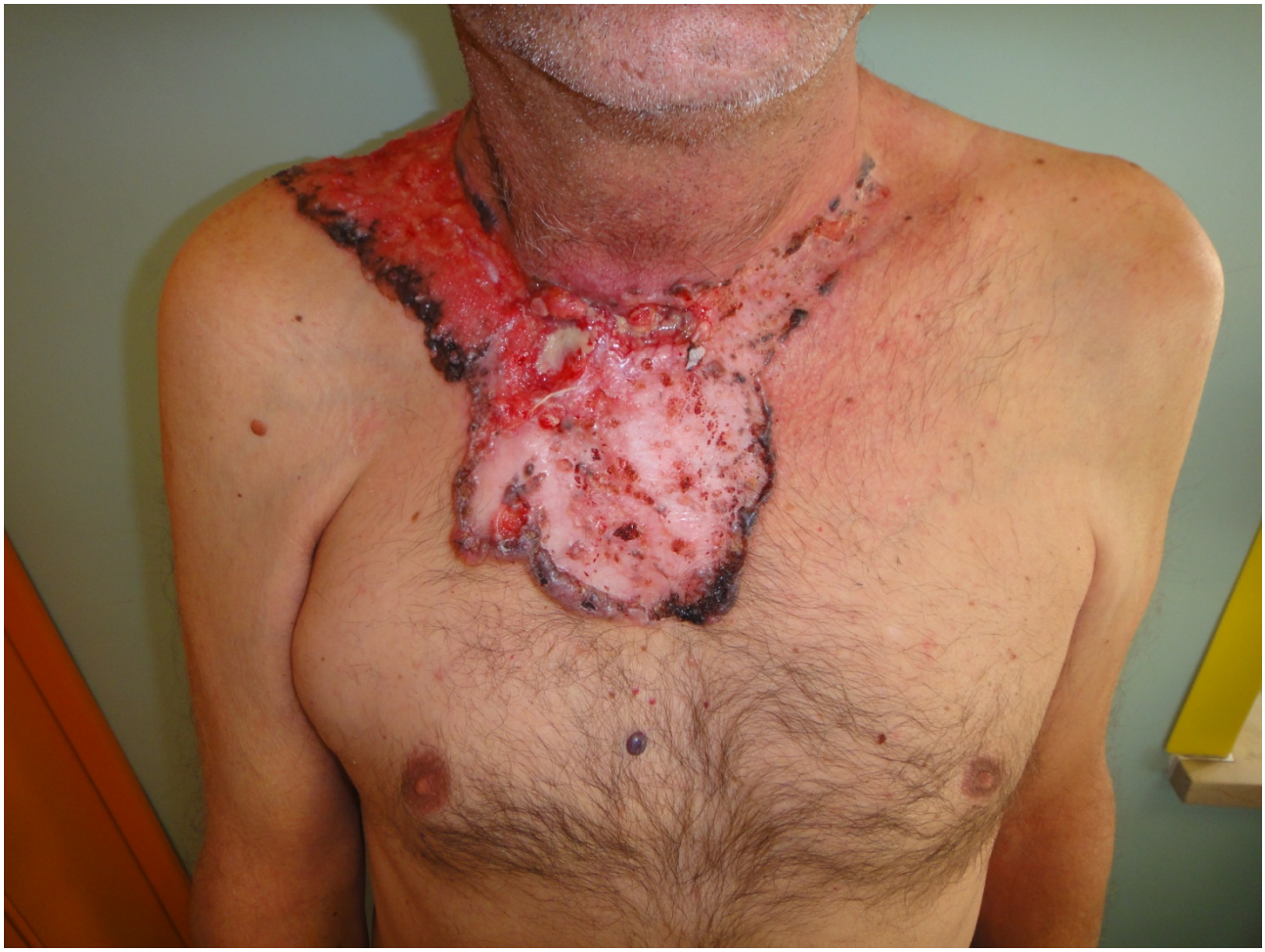
Introduction

The presence of two several skin lesions in the same patient is a rare occurrence in dermatological findings. The associations of malignant melanoma (MM) and giant basal cell carcinoma (BCC) within the same patient have only been described in few cases in the literature.[1,6] Is there a common genetic origin? However, until now the pathogenesis of collision tumors existing of MM and BCC remains unclear. We, therefore, report a case of association of MM and BCC in the same patient.

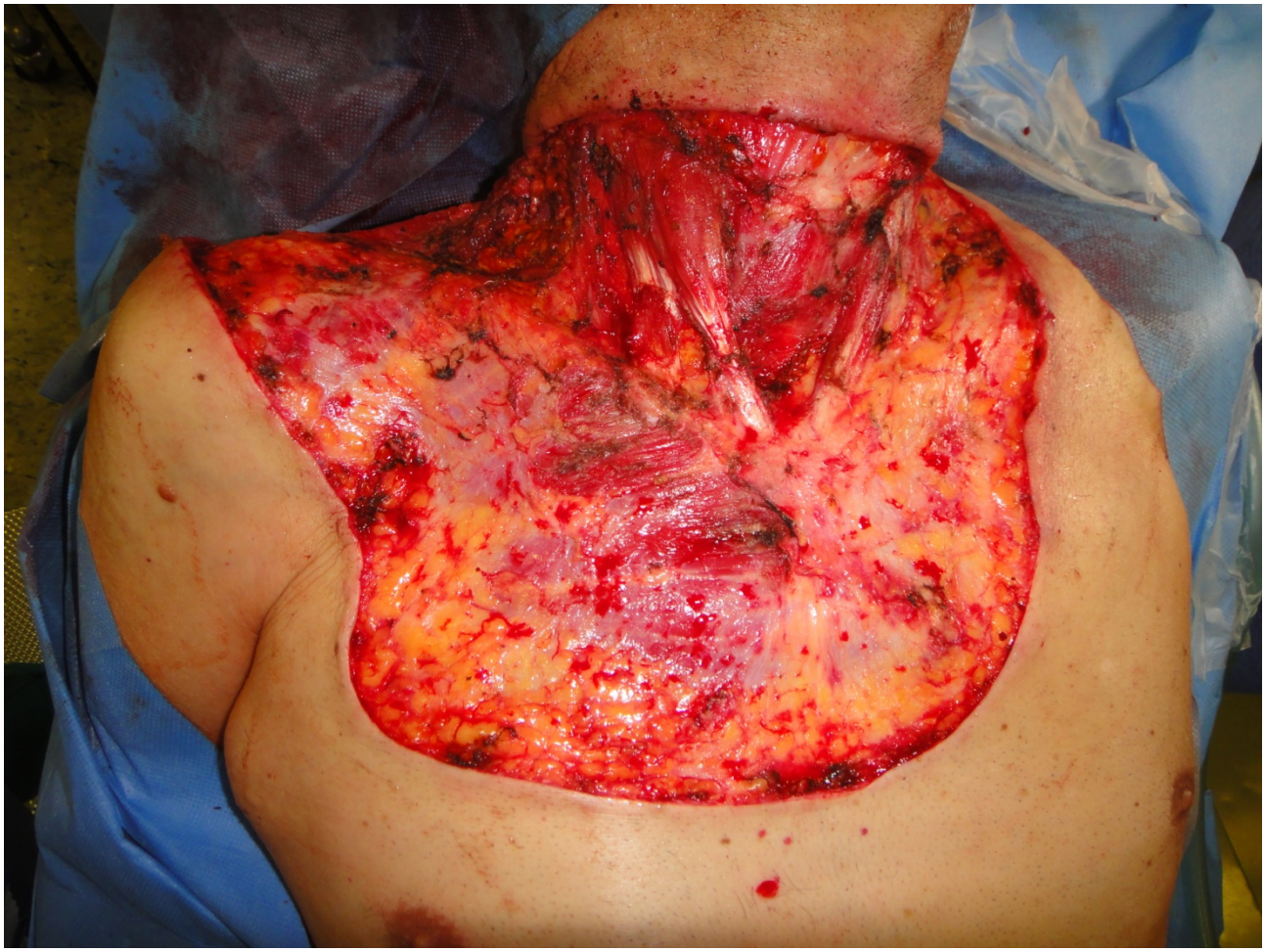
CASE REPORT

A 65 years-old man presented to our department with a 2-years history of an ulcer on his chest and anterior neck. It started as a small ulcer and it progressively increased. Physical examination revealed a lesion of 24 x 13 x 17 cm with no bone exposure. Its borders were sharply demarcated and raised (picture 1).



Picture 1: Giant basal cell carcinoma after surgical treatment;

Several biopsies of the lesion revealed a moderately differentiated basal cell carcinoma of infiltrative type. On physical examination a second lesion was noted on right shoulder-blade. It was a firm brownish swelling measuring 3 x 1 cm, with no bleeding or ulceration. The biopsy showed features of malignant melanoma. Laboratory test results including complete blood cell count, urine analysis, liver function test, chest x-ray, electrocardiogram and CT, were within normal limits or negative. The patient was submitted to surgical treatment. The giant lesion of chest was totally removed, and the defect was covered by split thickness skin graft.



Picture 2: the lesion after surgical treatment;

The histopathology examination confirmed the diagnosis of BCC. The second lesion was removed too, and the examination confirmed the diagnosis of MM (thickness of 0,35 mm, Clark's level III). The patient's recovery was uneventful and the graft took successfully. He was referred to the oncologist for further treatment.

Discussion:

Giant basal cell carcinoma is an aggressive variety of basal cell carcinoma with diameter > 5 cm (T3 BCC). It is characterized by deep tissue invasion, rapid growth, high risk of metastasis and a poor prognosis. GBCC represent 0,4- 1 % of all BCC.[7] The pathogenesis of GBCC is sometimes linked to a spontaneous mutation in the PTCH gene, mapped to the q22.33 locus of chromosome 9.[8] Risk factors for the development of GBCC include delayed presentation, patient neglect, recurrence after previous treatment, aggressive histological subtypes (morpheaform, micronodular, and metatypical) or a history of radiation exposure. The most common lesions are sited on the back, face or upper extremity. Anterior thoracic lesions are very rare. In our case, the GBCC is associated with melanoma.[9,10] Two skin tumors can coexist simultaneously in the same patient, but it is a

much more unusual event. According to the literature review performed, there are 28 cases of collision tumors involving melanoma and BCC, but there are not described cases of association of GBCC with melanoma.[11,14] Our question is: it is possible a common pathogenesis? It is known that severe intermittent exposure to sunlight is a common risk factor for the development of melanoma and BCC. Some authors believe that the presence of a tumor may induce epithelial or stromal alterations, responsible for the development of a second tumor, in the collision of malignant neoplasm of the skin.[9,12] Other authors believe that the two tumors developed independent of each other.[13,14] The studies published in literature so far not the response to our question and the pathogenesis of the association of this two neoplasm remains unclear. Currently the only certainty we have, is the radicality of the surgery treatment.

References:

1. Zaballos, P (2005) Dermoscopy is useful for the recognition of benign–malignant compound tumours. Br J Dermatol 153: pp. 653-6
2. Recurrence of paratesticular liposarcoma: a case report and review of the literature. Gabriele R, Ferrara G, Tarallo MR, Giordano A, De Gori A, Izzo L, Conte M. World J Surg Oncol. 2014 Aug 29;12:276. doi: 10.1186/1477-7819-12-276. Review.
3. Burkhalter, A, White, WL (1997) Malignant melanoma in situ colonizing basal cell carcinoma: a simulator of invasive melanoma. Am J Dermatopathol 19: pp. 303
4. Martorell, A (2010) Dermoscopic features of a collision tumour composed of a pigmented basal cell carcinoma and a melanoma. J Eur Acad Dermatol Venereol 24: pp. 982-984
5. Papa, G, Grandi, G, Pascone, M (2006) Collision tumor of malignant skin cancers: a case of melanoma in basal cell carcinoma. Pathol Res Pract 202: pp. 691-694
6. Pierard, GE (1997) Collision of primary malignant neoplasms on the skin: the connection between malignant melanoma and basal cell carcinoma. Dermatology 194: pp. 378-379
7. Desangles F (1999) Y loss in leukemia. Atlas Genet Cytogenet Oncol Haematol. doi:10.4267/2042/37511
8. Dyke DV (2001) Y loss in leukemia. Atlas Genet Cytogenet Oncol Haematol. doi:10.4267/2042/37712
9. Kujawski, MEA (2004) Frequent chromosome Y loss in primary, second primary and metastatic squamous cell carcinomas of the head and neck region. Cancer Lett 208: pp. 95-101
10. Boyd AS, Rapini RP. Cutaneous collision tumors: an analysis of 69 cases and review of the literature. Am J Dermatopathol. 1994;16:253–257.

11. Wang H, Benda PM, Piepkorn MW. Parasitism of basal cell carcinoma by lentigo maligna melanoma. J Am Acad Dermatol. 2003;48:S92–S94.
12. Salerni G1, Lovatto L, Carrera C, Palou J, Alos L, Puig-Butille JA, et al. Correlation among Dermoscopy, Confocal Reflectance Microscopy, and Histologic Features of Melanoma and Basal Cell Carcinoma Collision Tumor. Dermatol Surg. 2011;37:275–279.
13. Credid HM, Menezes AS, Aikaiwa KF, Lehn CN, Rapoport A, Mercante AMC, Curioni AO. Tumor de colisão de pele do pescoço. Rev Col Bras Cir. 2011;38:66–70.
14. National Comprehensive Cancer Network . NCCN Clinical Practice Guidelines in Oncology. Melanoma. Vol. 2 Fort Washington: NCCN; 2009.
15. Hirakawa E, Miki H, Kobayashi S, Nomura Y, Ohmori M. Collision Tumor of Cutaneous Malignant Melanoma and Basal Cell Carcinoma. Pathol Res Pract. 1998;194:649–653.