Multiple primary melanoma and non-melanoma skin cancer in a middle-aged patient: case report

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Introduction:

The presence of multiple melanoma and non-melanoma skin cancer in an individual may suggests a conjunction of an underlying genetic predisposition. Several genes and hereditary syndromes are involved in the development of multiple skin cancer-types.

Case presentation:

A 40-year-old fair-skinned male patient from rural area, with personal history of numerous childhood blistering sunburns, chronic ultraviolet exposure and melanoma of the head excised in 1999 and treated with 6 cycles of Dacarbazine plus Interferon, presented for multiple progressively growing asymptomatic, pigmented lesions localized on the trunk and upper limb, as well as for multiple papular and nodulo-ulcrerative lesions on the face and trunk.

Total body skin examination (TBSE):

- multiple erythematous, translucent papules and nodulo-ulcerative lesions with hematic crusts, localized on the face and trunk *(Fig. 1, 2, 3, 7,9, 12, 18)*

- multiple asymmetric, multi-coloured pigmented lesions with variable diameters from 0.7/0.7 cm to 3.5/3 cm, with irregular borders, localised on the upper part of the trunk and extensor surfaces of the arms and right thigh *(Fig. 7, 8, 9, 10, 14, 16)*

- facial teleangiectasias, multiple actinic keratoses *(Fig. 1, 2, 3)*

- laterocervical and facial poikiloderma *(Fig. 1, 2)*

- solar lentigines on sun-exposed areas *(Fig. 7,8,9)*

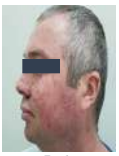


Fig. 1

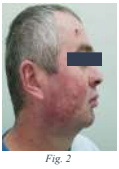


Fig. 2

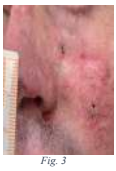


Fig. 3


Fig. 4

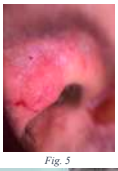


Fig. 5

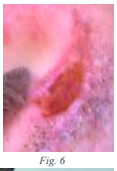


Fig. 6

Dermoscopic evaluation:

- the papulo-nodular lesions on the face presented arborizing vessels, ulceration, crusts and scales *(Fig. 4, 5, 6)* as well as white circles *(Fig. 6)*

-the pigmented lesions on the trunk and arms showed atypical pigment network, aggregated globules, streaks, pseudopods, peppering, scar-like depigmentation, milky-red areas, polymorphous vessels and chrysalis structures. *(Fig. 11, 15 A,B, 17)*

- the erythematous nodular lesion on the left subclavicular region presented polymorphous vessels, milky-red areas, crystallines, brown-greyish globules on the periphery and an ill-defined bluish-grey area centrally *(Fig. 13)*

-the erythematous ulcerated nodule on the back showed hematic crust, white scale milky-red areas, and dotted vessels *(Fig. 19)*

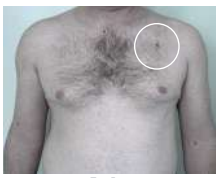


Fig. 7

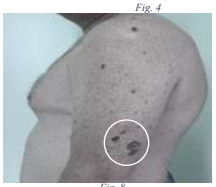
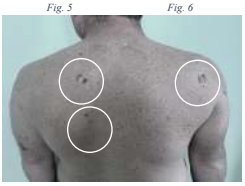


Fig. 8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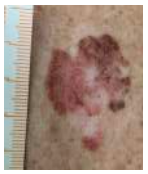


Fig. 10

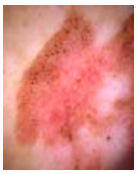


Fig. 11

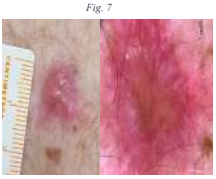


Fig. 12

Fig. 13

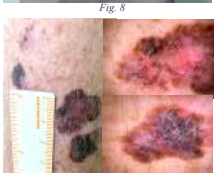


Fig. 14

Fig. 15 A, B

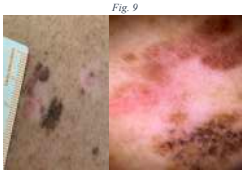
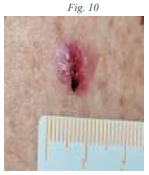


Fig. 16

Fig. 17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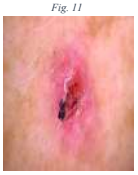


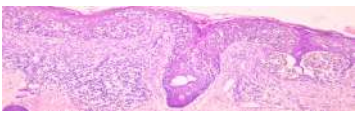
Fig. 19

Laboratory tests:

- complete blood cell count, liver and kidney function tests, glucose, electrolytes, coagulation tests were all within normal limits except an elevated gamma-glutamyl transferase level

- **S100** and **lactate dehydrogenase** levels were within normal range

Histopathologic evaluation: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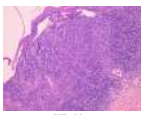
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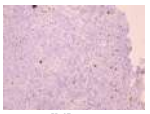
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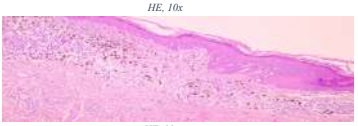
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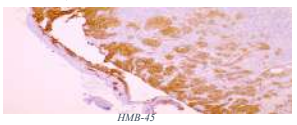
HMB-45

Imaging studies:

- **brain MRI** with contrast

- **latero-cervical, supraclavicular and axillary lymph node ultrasound**

- **thoraco-abdomino-pelvic native and contrast CT**

NEGATIVE

- Excisional biopsy of the pigmented lesions on the left upper arm (fig. 14) on the back (fig. 16) and on the right shoulder (fig. 10), as well as of the erythematous nodule on the left subclavicular region (fig. 12) and of the nodulo-ulcerative lesion on the back (fig. 18) was performed and histopathologically confirmed as **superficial spreading melanoma with radial growth phase (Breslow 1.5 mm)**, **superficial spreading melanoma in situ**, **superficial spreading melanoma with radial growth phase (Breslow 0.4 mm)**, **superficial spreading melanoma with vertical growth phase (Breslow 2.8 mm)** and **superficial spreading melanoma with vertical growth phase (Breslow 0.8 mm)**

- Histology of the nodular lesion from the maxillary region as well as the nodulo-ulcerative tumor from the infranasal area showed **basal cell carcinoma** and **basosquamous carcinoma,** respectively.

Discussion:

Based on the clinical and paraclinical examinations, the diagnosis of multiple primary melanoma and non-melanoma skin cancer was established. Taking into consideration the photosensitivity, presence of poikiloderma, actinic keratoses and solar lentigines on the sun-exposed areas xeroderma pigmentosum was suspicioned.

Conclusion:

We report a case of a male patient with early-onset multiple superficial spreading melanoma associated with multiple non-melanoma skin cancer. Even though XP is the most probable diagnosis, further genetic tests are needed for confirmation.

References:

1. Schierbeck J, Vestergaard T, Bygum A. Skin Cancer Associated Genodermatoses: A Literature Review, Acta Derm Venereol 2019; 360-369
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3. Leachman SA, Lucero OM, Sampson JE, Cassidy P, Bruno W, Queirolo P, et al. Identification, genetic testing, and management of hereditary melanoma. Cancer Metastasis Rev 2017; 36: 77–90