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# Pigmentary complications of chemotherapy for metastatic melanoma

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## Abstract

Induction of multiple eruptive cutaneous nevi has been frequently reported in children with hematologic malignancies and chemotherapy-induced immunosuppression. This is the first report of an adult female patient developing multiple eruptive melanocytic skin lesions while undergoing chemotherapy for metastatic melanoma. Our observation adds further evidence to the link between systemic immunosuppression (iatrogenic or intrinsic) and the induction of melanocyte proliferation and transformation.

***Keywords:*** Eruptive nevus; Chemotherapy; Melanoma.

## Introduction

The appearance of hyperpigmentation and nevus during chemotherapy is one of the dermatological adverse effects most frequently observed with these treatments. We report the case of eruptive nevus in a patient undergoing chemotherapy for metastatic melanoma.

## Observation

A 30-year-old patient with a history of metastatic melanoma on a congenital nevus of the right buttock treated by surgery plus inguinal and iliac lymph node dissection with adjuvant chemotherapy using Carboplatin Paclitaxel. After her first course of chemotherapy, she presented with the appearance of multiple diffuse pigmented lesions, and accentuation of the pigmentation of old lesions. The dermatological examination revealed multiple homogeneous dark brown papules, measuring 5 mm at the largest, rounded, well limited, 17 in number distributed as follows: 5 opposite of the right scapula, 1 below the left scapula, 1 right middorsal, 2 left lumbar, 2 above the scar on the right flank, 2 left breast, 1 right under the mammary, 1 left abdominal under the mammary, 2 directly on the scar inguinal dissection (Figures 1 and 2). The dermoscopic examination revealed an identical globular pattern (even similar to its former Naevius) there were no subcutaneous nodules in transit or satellites, the rest of the examination is unremarkable given the clinical and dermoscopic appearance the diagnosis of post-chemotherapy eruptive nevus was made.

## Discussion

Eruptive nevus syndrome" is a rare phenomenon defined as the eruption of several nevi over a short period in immunocompromised patients. Eruptive nevi may also be seen in patients receiving biologic agents, chemotherapy for malignancies, and immunosuppressive agents after organ transplantation; in patients with AIDS; and in pregnant women [1]. Clinically, these are pigmented macules of a few millimeters, with regular contours, appearing quickly during or shortly after chemotherapeutic treatment. These nevi can sometimes take on a dysplastic clinical or histological appearance [2]. Although previous authors have attributed the nevi to the chemotherapeutic agents administered, in particular by deregulation of the expression of endogenous growth factors such as Melanoma Growth Stimulatory Activity (MGSA) or MSH the possibility that it is a paraneoplastic phenomenon linked to the underlying malignant tumor to be treated cannot be ruled out [3]. We report the appearance of eruptive nevi which developed after the use of Carboplatin and Palitacxel for lymph node metastatic cutaneous melanoma. This has not been previously reported in the medical litera-

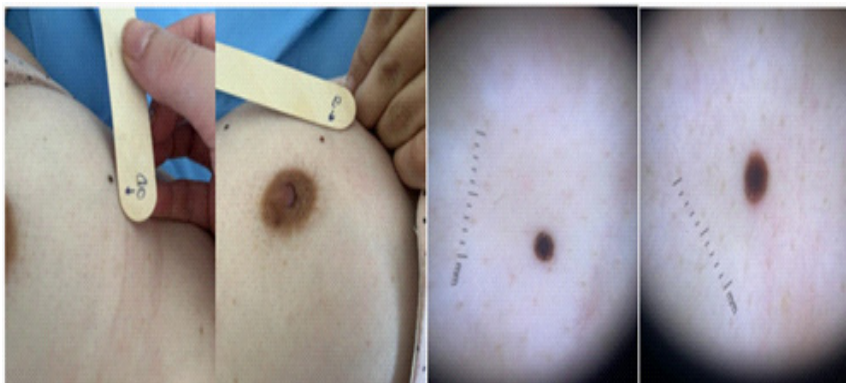

**Figure 1:** Clinical and dermoscopic image of 2 neavus in the breast showing 2 pigmented papules with a globular pattern on dermoscopy.

**Figure 2:** Clinical image of neavus on lymph node scarring.

ture. Many causes and associations have been reported with eruptive nevi, including bullous disease, immunodeficiency, malignancies, exposure to toxicants, medications, and various systemic diseases [4]. Although it is tempting to attribute his eruptive nevi to the use of alkylating agents, the possibility that it is a paraneoplastic phenomenon cannot be ruled out. McCourt and his colleagues mentioned it in the context of prostate cancer [3]. Salopek also mentioned this hypothesis in a patient treated with interferon for metastatic melanoma [5]. The evolution of these nevus is not clearly established, even if progressive regression is possible within a few months upon stopping treatment [6]. There are described cases of the appearance of melanoma such as the case of melanoma in situ reported by Jason C et al. [7] for this reason, close and close dermoscopic monitoring is recommended in order to detect any changes early and the most atypical lesions must be removed.

## Conclusion

Our observation illustrates a case of eruptive nevi under Carboplatin paclitaxel combination. To our knowledge, the appearance of eruptive nevi under Carboplatin, Paclitaxel has never been described. This may be secondary to the drug or be a paraneoplastic phenomenon. Our observation adds further evidence to the link between systemic immunosuppression (iatrogenic or intrinsic) and the induction of melanocyte proliferation and transformation.

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**Conflict of interest:** The authors declare that they have no conflicts of interest.

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