

# An irregular pigmented lesion on the back

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## The patient

An 87-year-old woman with a history of multiple basal cell carcinomas presented to a follow-up visit referring a pigmented, slowly growing lesion on her right scapula that had been present for one year. Physical examination revealed an irregular 12 x 5 mm well circumscribed pigmented lesion with an elevated keratotic surface (Figure 1).

The dermoscopic evaluation revealed a multicomponent pattern: many colors, superior irregular pigmented network

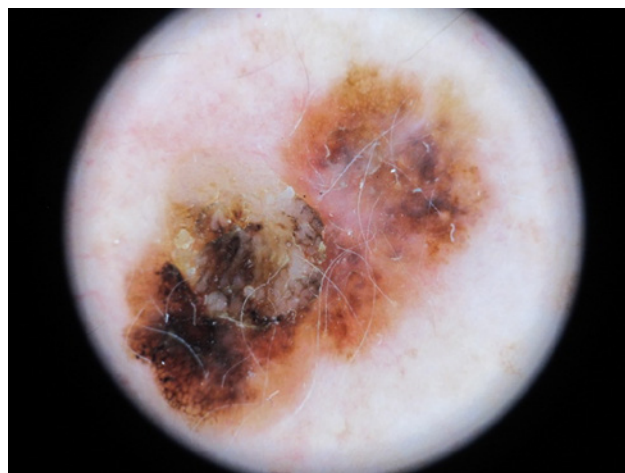
with blue-white veil and inferior cerebriform pattern surrounded by atypical pigmented network with sharp demarcation (Figure 2).

The patient underwent complete exeresis of the lesion and the specimen was stained with hematoxylin-eosin. Histopathological examination showed a papillomatous epidermal hyperplasia with hyperkeratosis and cell nests in the dermo-epidermal junction (Figure 3) and proliferation of atypical intraepidermal melanocytes with a pagetoid spread (Figure 4).

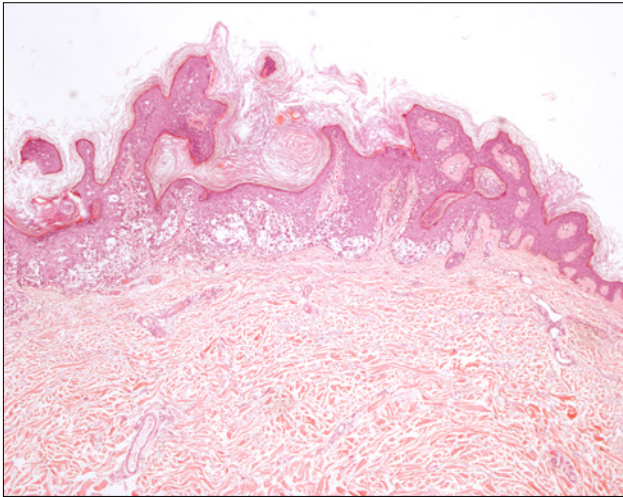
What is your diagnosis?



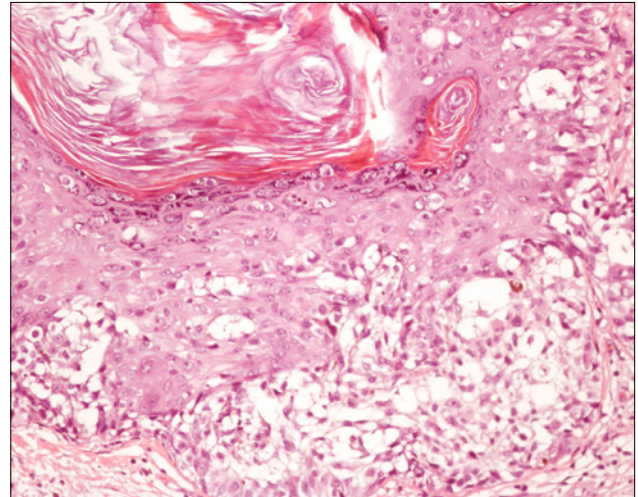
**Figure 1.** Close up-view of the scapular area shows an irregularly pigmented lesion with a verrucous surface. [Copyright: ©2016 Gonzalez-Olivares et al.]



**Figure 2.** Dermoscopic features. Multicomponent pattern. [Copyright: ©2016 Gonzalez-Olivares et al.]



**Figure 3.** Papillomatous epidermal hyperplasia with hyperkeratosis and cell nests in the dermoepidermal junction. Hematoxylin-eosin-stained section of the specimen (original magnification, 40x). [Copyright: ©2016 Gonzalez-Olivares et al.]



**Figure 4.** Proliferation of atypical intraepidermal melanocytes with a pagetoid spread. Note large epithelioid cells with nuclear atypia and abundant cytoplasm. Hematoxylin-eosin-stained section of the specimen (original magnification, 200x). [Copyright: ©2016 Gonzalez-Olivares et al.]

## Diagnosis

Melanoma in situ arising in a seborrheic keratosis

## Answer and explanation

Although previously reported, the presence of a malignant melanoma within a seborrheic keratosis is extremely rare [1,2]. Seborrheic keratoses are common non-melanocytic epidermal tumors that are usually well recognized clinically. Despite this, an accurate diagnosis may be troublesome at times. Dermoscopy is a non-invasive method and diagnostic aid and should be performed in all lesions [3].

In addition to melanocytic nevi, malignant neoplasms arising within or adjacent to seborrheic keratoses have been previously documented [1,2,4-7]. Cascajo et al performed a retrospective analysis of 54 malignant neoplasms in conjunction with seborrheic keratoses, most of them corresponding to basal cell carcinomas, followed in number by squamous cell carcinomas and two malignant melanomas [1]. In addition to the cases reported by Cascajo et al, a handful of cases of melanoma arising in seborrheic keratoses have been reported in the literature [2,4-7]. This association is believed to be more than a simple coincidental collision between tumors, and the term compound tumor is proposed as the most appropriate appellation [1,2]. A possible explanation is that neoplasms may derive from the different cells that compose seborrheic keratoses: basal cell carcinoma from the predominant basalioid cells, squamous cell carcinoma from the pale eosinophilic spinous cells and malignant melanoma from the melanocytes admixed among the keratinocytes [1]. Based on previous findings, DeFazio et al postulated that the association of nevus and melanoma with seborrheic keratosis might be due

to mutations in growth factors more than just a coincidental collision between tumors [2]. These mutations may result in an altered cell-to-cell communication between melanocytes and keratinocytes that would lead to an abnormal proliferation of melanocytes and/or keratinocytes [2].

Taking into account the potential consequences of overlooking a malignant melanoma, thorough clinical and dermoscopic evaluations should be performed in all patients with seborrheic keratosis in order to provide a correct diagnosis before proceeding to any destructive treatment.

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