

One Clue, Two Outcomes: Benign vs Malignant Through Dermoscopy

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Introduction

Pyogenic granuloma is a common benign vascular lesion that can clinically and dermoscopically imitate melanoma and other tumors [1]. In our case, pyogenic granuloma and nodular melanoma exhibited dermoscopic similarities. Some dermoscopic patterns, which include characteristics such as a yellow collarette, a reddish homogenous area, and the presence of white rail lines, can aid in diagnosing pyogenic granuloma [12]. Even though pyogenic granuloma is benign, histology is still necessary, especially in cases where vascular structures are present, as melanoma cannot be ruled out [1,3].

Case Presentation

In this paper, we present two cases with outstanding similarities in clinical and dermoscopic presentation but contrasting histological findings.

The first case involves a 25-year-old female who presented with a rapidly growing, bleeding lesion on her back.

The lesion, approximately 1.2 cm in diameter, appeared 2.5 weeks before her consultation (Figure 1A). Upon physical examination, it was identified as an exophytic, red, nodular lesion. The patient denied any history of trauma, sunburns, or a family history of skin cancer. Dermoscopy showed a reddish homogeneous area, the presence of polymorphic vessels, and a characteristic yellow collarette enveloping the periphery (Figure 1B). The lesion was surgically excised, and histopathological analysis confirmed the diagnosis of pyogenic granuloma. The presence of the yellow collarette, which is indicative of hyperplastic epithelium, was crucial in suggesting the benign nature in this case.

The second case describes a 44-year-old female who presented with a similarly fast-growing, bleeding lesion on her back. The lesion, approximately 2 cm in diameter, had been increasing in size for three months (Figure 2A). Like the first case, the patient had no notable family or personal history of skin cancer or risk factors like severe sunburns during childhood. On dermoscopic examination, the lesion exhibited erythema and polymorphic vessels, closely resembling the findings in the first patient (Figure 2B). The lesion was

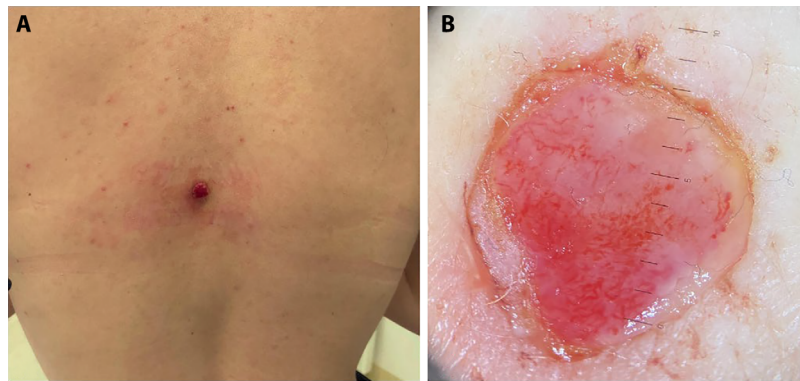


Figure 1. An exophytic, bleeding nodular lesion on the back of a 25-year-old female (A), polymorphic vessels, erythema and a yellow collarette (B).

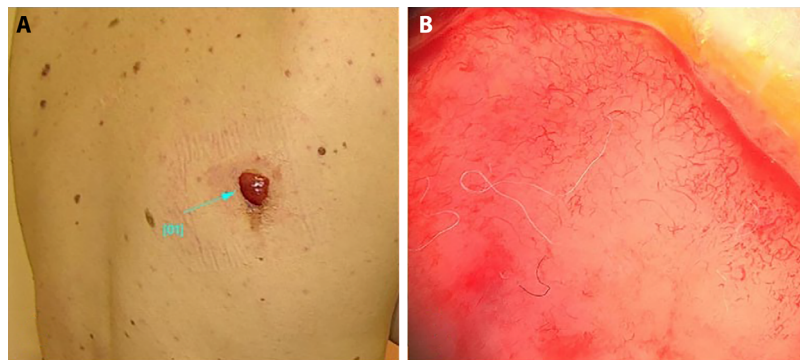


Figure 2. An erythematous, ulcerated nodular lesion located on the back of a 44-year-old female (A), polymorphic vessels and erythema (B).

excised and histologically confirmed as an ulcerated nodular melanoma, pT3b, Breslow thickness 3.8 mm, Clark level III. The presence of vascular structures in a red tumor resembling pyogenic granuloma indicates that melanoma must be excluded and highlights the need for prompt histological confirmation in similar cases [1,3].

Conclusion

Although pyogenic granuloma and nodular melanoma can exhibit overlapping clinical and dermoscopic characteristics, subtle differences, such as the presence of a yellow collarette, can help differentiate them. Still, the yellow collarette alone cannot be considered a tell-tale sign that the lesion is benign, as it can also be seen in melanomas and other skin

malignancies [1,2]. Given the potential for melanoma, histological examination remains crucial when vascular structures are present in rapidly growing lesions [3].

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