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# Target nevus: dermoscopy and reflectance confocal microscopy

Nevo em alvo: dermatoscopia e microscopia confocal de reflectância

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## ABSTRACT

Halo, cockade, eczematous, and targetoid hemosiderotic nevi are known as target nevi, classified as melanocytic nevi with special features and often mimic melanoma. This communication aims to demonstrate clinical manifestations, dermoscopic patterns, and reflectance confocal microscopy findings in 4 patients with different types of target nevi.

Keywords: Dermoscopy; Microscopy, Confocal; Melanoma; Nevus, Halo.

#### RESUMO

Os nevos halo, cocar, eczematoso e hemossiderótico targetoide são conhecidos como nevo em alvo, classificados como nevos melanocíticos especiais e frequentemente simulam melanoma. A presente comunicação tem como objetivo demonstrar as manifestações clínicas, os padrões dermatoscópicos e os achados na microscopia confocal de reflectância de quatro pacientes com diferentes tipos de nevos em alvo.

Palavras-chave: Dermoscopia; Microscopia Confocal; Melanoma; Nevo com Halo.

# **Diagnostic imaging**

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Some melanocytic nevi are classified dermoscopically as special nevi, exhibiting distinct clinical and histopathologic features. They are considered "melanoma mimics" and include target nevi, such as halo, cockade, eczematous, and targetoid hemosiderotic nevi.1 While the dermoscopy and reflectance confocal microscopy (RCM) patterns of typical nevi are wel-1-documented, there are limited data on this specific category of nevi.2 This communication aims to demonstrate clinical manifestations, dermoscopic patterns, and RCM findings in different cases of target nevi. We present 4 patients (2 men and 2 women), aged 24 to 39 years with phototypes 1-3, with distinct presentations of target nevi: halo, cockade, eczematous, and targetoid hemosiderotic nevi, detailing their clinical, dermoscopic, and RCM structures. Dermoscopy was performed using the FotoFinder medicam 1000 imaging system, and RCM was performed using the VivaScope 1500. We report 4 different benign melanocytic nevi, termed target nevi: halo, cockade, eczematous, and targetoid hemosiderotic. The halo nevus, also known as Sutton nevus,<sup>3</sup> presents as a pigmented lesion located on the patient's lower back, surrounded by a peripheral white halo. Dermoscopically, the nevus exhibits a globular pattern, surrounded by a white rim of depigmentation. RCM mosaic image shows dense bright nests at the dermoepidermal junction (DEJ) and in the dermis (Figure 1 A, B, C). The cockade nevus, located on the patient's neck, features a central pigmented papular nevus,<sup>4</sup> surrounded by a depigmented inner rim and a pigmented outer rim. Dermoscopically, the nevus exhibits a central globular pattern, a lighter homogeneous inner ring, and a peripheral darker reticular ring. RCM mosaic image shows, at the level of the DEJ, a central dense nest and a ringed pattern at the periphery (Figure 2 D, E, F). The eczematous nevus,<sup>1</sup> also known as Meverson's phenomenon, presents as an eczematous halo surrounding a pigmented nevus, located on the patient's back. Clinically, it appears as a small brown papule with an erythematous halo and evident overlying scales. Dermoscopically, the phenomenon does not modify the characteristics of the nevi, maintaining a re-



**FIGURE 1: A, B and C** - Sutton nevus: papule surrounded by a peripheral white halo; dermoscopy: central globular pattern and peripheral white depigmentation; reflectance confocal microscopy: dense bright nests



**FIGURE 2: D, E and F** - Cockade nevus: papular nevus surrounded by 2 halos, depigmented and pigmented; dermoscopy: globular pattern, lighter homogeneous inner halo, and peripheral darker reticular halo; reflectance confocal microscopy: central dense nest surrounded by a ringed pattern



**FIGURE 3: A, B and C** - Eczematous nevus: small brown papule with an erythematous halo and overlying scales; dermoscopy: reticular pattern, but blurred due to a yellowish serocrust; reflectance confocal microscopy: roundish to oval spaces in the epidermis filled with small bright round particles



**FIGURE 4: D, E and F** - Hemosiderotic nevus: violaceous, ecchymotic halo surrounding a flat central nevus; dermoscopy: homogeneous pattern with vascular hemorrhage, red to purple; reflectance confocal microscopy: ringed pattern

ticular pattern, although it may appear blurred due to yellowish serocrusts. RCM mosaic image shows roundish to oval spaces in the epidermis filled with small bright round particles, indicative of inflammatory cells (Figure 3 A, B, C). The targetoid hemosiderotic nevus<sup>5</sup> was reported by the patient as a sudden change in the pigmentation of a preexisting nevus, clinically resulting in an asymptomatic, violaceous, ecchymotic halo surrounding a flat central nevus. Dermoscopically, the lesion shows a homogeneous pattern with hemorrhagic vascular features, ranging from red to purple, superimposed on and surrounding the nevus. RCM mosaic image reveals the presence of a ringed pattern at the level of the DEJ (Figure 4 D, E, F). Recognizing the clinical, dermoscopic, and RCM features of melanocytic nevi with special features is crucial for improving diagnostic accuracy in unusual clinical and dermoscopic cases. This recognition helps to avoid unnecessary excisions in cases that are frequently misdiagnosed as melanoma.

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Preparation and writing of the manuscript; acquisition, analysis and interpretation of data; critical review of the literature; critical revision of the manuscript.

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