



Confocal reflectance microscopy in basal cell carcinoma with globular dermoscopic pattern

Microscopia confocal de refletância no carcinoma basocelular com padrão dermatoscópico globular

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ABSTRACT

The globular dermoscopic pattern in pigmented lesions of basal cell carcinoma can cause diagnostic confusion, especially in cases in which other more commonly observed structures are absent. Therefore, the use of reflectance confocal microscopy becomes important to determine the diagnosis and eliminate the need for biopsies.

Keywords: Carcinoma, Basal Cell; Dermoscopy; Microscopy, Confocal.

RESUMO

O padrão dermatoscópico globular em lesões pigmentadas de carcinoma basocelular pode causar confusão diagnóstica, especialmente em casos nos quais outras estruturas, mais comumente observadas, estão ausentes. Portanto, o uso da microscopia confocal de refletância torna-se importante para determinar o diagnóstico e eliminar a realização de biópsias.

Palavras-chave: Carcinoma Basocelular; Dermoscopia; Microscopia Confocal.

Case Report

Authors:

Ana Maria Costa Pinheiro¹
Flávia Vieira Brandão²

¹ Universidade de Brasília, Department of Internal Medicine, Medical School, Brasília (DF), Brazil.

² Hospital Regional da Asa Norte, Dermatology Department, Brasília (DF), Brazil.

Correspondence:

Ana Maria Costa Pinheiro
E-mail: dermatoanapinheiro@gmail.com

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INTRODUCTION

On histopathology, the globular pattern found in pigmented lesions of basal cell carcinoma (BCC) corresponds to pigmented basaloid aggregates located at the dermoepidermal junction (DEJ) or in the dermis.^{1,2} When this pattern is predominantly present or in the simultaneous absence of other dermoscopic structures characteristic of basal cell carcinoma, diagnosis using dermoscopy alone can be challenging. In this context, the use of confocal reflectance microscopy (CRM), which shows structures that correlate directly with histopathology, can be of great value. This communication aims to highlight the importance of CRM in the diagnosis of BCC lesions, especially in cases in which dermoscopy does not show the most prevalent characteristics.

CASE REPORT

The authors reported two cases of pigmentary lesions in young women. The lesions were examined using dermoscopy and CRM. Dermoscopy was performed using the Fotofinder ATBM skin imaging system and CRM using the Vivascope 1500 device, which displays images of the epidermis, DEJ, and dermis. Diagnosis was confirmed through anatomopathological examination.

Case 1: A 43-year-old woman, phototype II, with a personal history of melanoma and BCC. During total body mapping, a pigmented lesion, clinically similar to a melanocytic nevus, was identified in the lumbar region. Dermoscopy showed a symmetrical lesion with light and dark brown globules and

dots, some of which were aggregated. No other structures were observed. RCM showed the presence of well-demarcated, shiny tumor islands/strands at the DEJ, with a surrounding dark cleft and palisade (Figures 1 and 3).

Case 2: A 34-year-old woman, phototype II, complaining of a six-year pigmentary lesion on her neck, with slow growth, and a previous diagnosis of melanocytic nevus. Dermoscopy showed an asymmetrical lesion with brown globules and dots. RCM showed bright strands at the DEJ, with dendritic structures inside and dark cracks around the strands (Figures 2 and 3).

DISCUSSION

Dermoscopy has a 95% specificity in the diagnosis of BCC.¹ In pigmented BCC lesions, characteristics which have been described as blue-grey ovoid nests or globules, concentric structures, leaf-like areas, and brown dots or globules were observed. The latter correspond, in histopathology, to small pigmented basaloid aggregates at the DEJ or superficial dermis, associated with pigmented BCC.² Although it is common to identify more than one dermoscopic feature in the same lesion, there are cases in which this does not occur, making the differential diagnosis challenging and including other lesions.^{3,4} RCM shows structures that correlate directly with histopathology from the epidermis to the dermis. In the epidermis, the polarization of the nuclei is oriented along the same axis. The most characteristic structures of basal cell carcinoma stand out at the DEJ, as aggregates of tumor cells, described as shiny strands or nodules, with

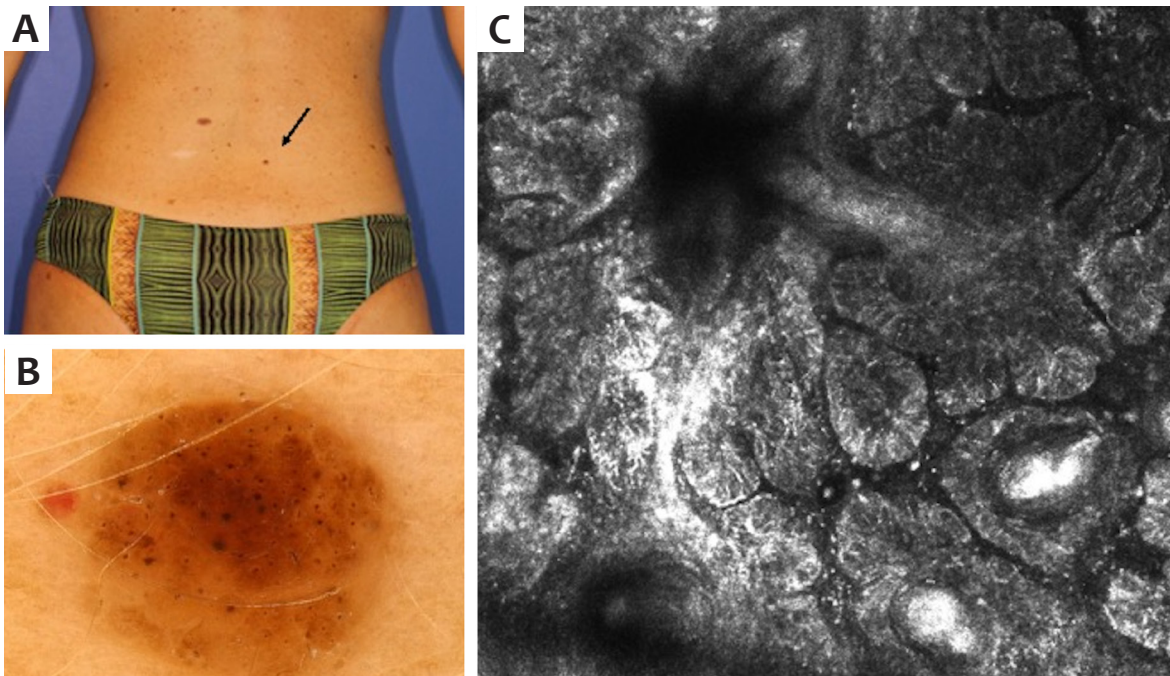


FIGURE 1:
A - Circular hyperchromic papule, measuring 4 mm, in the lumbar region. **B** - Light brown and dark brown globules simulating the cobblestone pattern. **C** - JDE confocal microscopy: aggregates of bright tumor cells with peripheral nuclear palisade and dark clefts

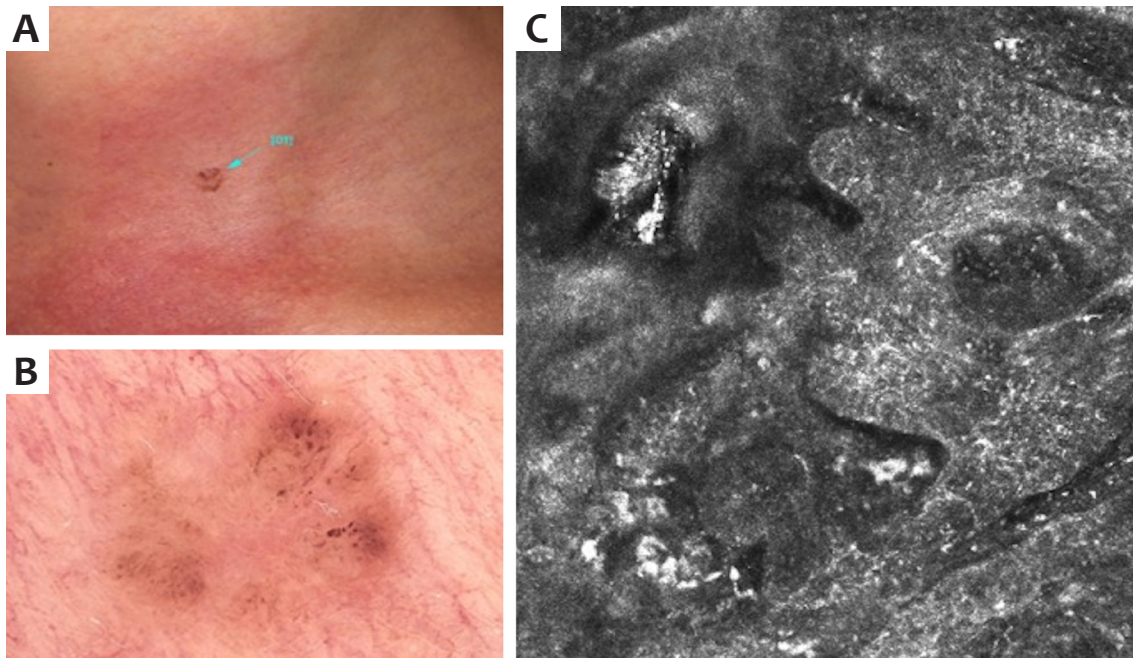


FIGURE 2:

A - Asymmetric hyperchromic papule, measuring 5 mm, in the left cervical region.
B - Asymmetric globules and dots.
C - JDE confocal microscopy: note the presence of strands with areas of high and low reflectance and bright dendritic structures, surrounded by dark clefts

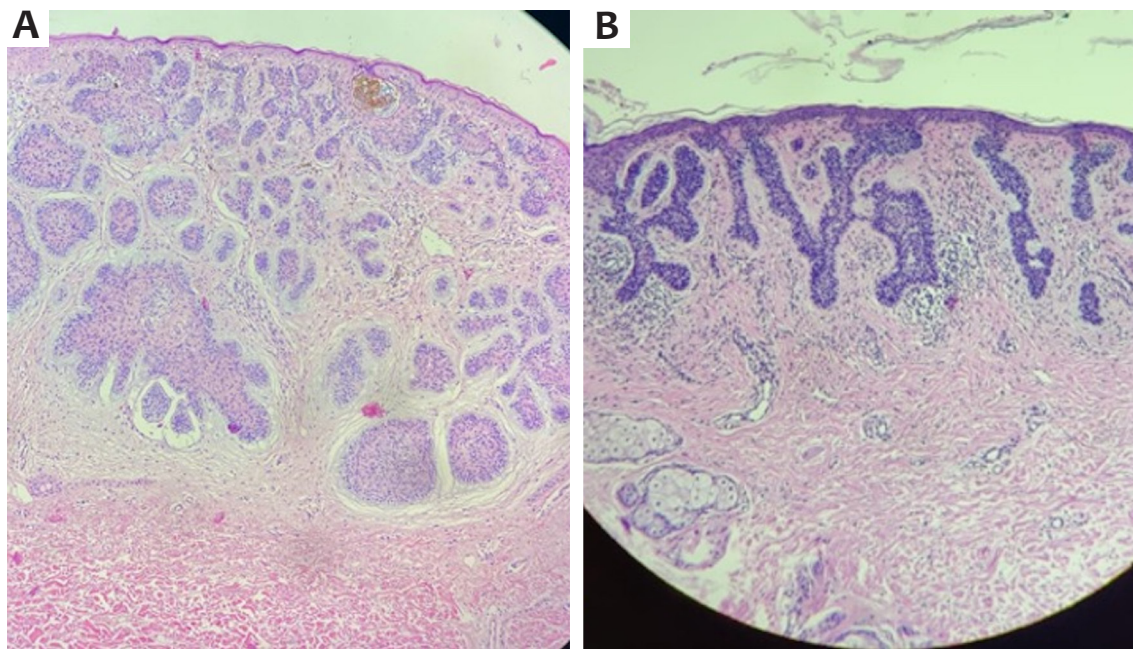


FIGURE 3:

A - Nests of basaloid cells with peripheral palisade arrangement, reaching as far as the reticular dermis. **B** - Nests of basaloid cells with peripheral palisade arrangement at the dermoepidermal junction

a peripheral nuclear palisade, often showing dendritic structures inside and dark crevices around them.⁵⁻⁷ These characteristics are more common in pigmented BCC. Therefore, RCM can be a valuable complement to the clinical and dermoscopic evaluation of cutaneous neoplasms, increasing diagnostic accuracy. BCC

with a globular pattern, in the absence of dermoscopic features, can be misdiagnosed as a melanocytic nevus. In such circumstances, RCM plays an important role in accurately confirming the diagnosis. ●

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AUTHOR'S CONTRIBUTION:

Ana Maria Costa Pinheiro  ORCID 0000-0002-7804-3567

Approval of the final version of the manuscript; study design and planning; elaboration and writing of the manuscript; data collection, analysis, and interpretation; active participation in research orientation; intellectual participation in the propaedeutic and/or therapeutic conduct of the cases studied; critical literature review; critical review of the manuscript.

Flávia Vieira Brandão  ORCID 0000-0003-3809-9774

Approval of the final version of the manuscript; preparation and writing of the manuscript; data collection, analysis, and interpretation; critical literature review; critical review of the manuscript.