DERMATOLOGY PRACTICAL & CONCEPTUAL
www.derm101.com

Reticulated acanthoma with sebaceous differentiation mimicking melanoma

Felipe Ribeiro[1], Elizabeth Leocadia[1], Ricardo S. Macarenco[2], Jan Lapins[3], Pascale Huet[4], Bengu Nisa Akay[5], Denise Steiner[1]

1 Department of Dermatology, Mogi das Cruzes University, Mogi das Cruzes, Brazil
2 Department of Pathology, Hospital Israelita Albert Einstein, São Paulo, Brazil
3 Department of Dermatology, Karolinska University Hospital, Stockholm, Sweden
4 Dermatology, Montferrier-sur-lez, France
5 Department of Dermatology, Ankara University, Ankara, Turkey

Key words: reticulated acanthoma with sebaceous differentiation, RASD, melanoma, mimicker, dermatoscopy, dermoscopy, histopathology

Citation: Ribeiro F, Leocadia E, Macarenco RS, Lapins J, Huet P, Akay BN, Steiner D. Reticulated acanthoma with sebaceous differentiation mimicking melanoma. Dermatol Pract Concept 2017;7(3):7. DOI: https://doi.org/10.5826/dpc.0703a07

Received: January 11, 2017; **Accepted:** May 27, 2017; **Published:** July 31, 2017

Funding: None.

Competing interests: The authors have no conflicts of interest to disclose.

All authors have contributed significantly to this publication.

Corresponding author: Felipe Ribeiro, MD, Department of Dermatology, Mogi das Cruzes University, 201 Ottavio Giannotti Street, 71 08773510 Mogi das Cruzes, São Paulo, Brazil. Tel. + 55 11 981971166 Email: rsfeliperibeiro@gmail.com

ABSTRACT Reticulated acanthoma with sebaceous differentiation (RASD) is a rare, benign cutaneous tumor with peculiar histopathologic characteristics [1]. RASD had been described under various synonyms such as superficial epithelioma with sebaceous differentiation, sebocrine adenoma, poroma with sebaceous differentiation, and seborrheic keratosis with sebaceous differentiation [2]. Clinical differential diagnosis of RASD includes cutaneous superficial epithelial neoplasia such as Bowen's disease, superficial basal cell carcinoma (BCC) and intraepidermal eccrine poroma [1]. We report the first case of RASD mimicking both clinically and dermoscopically a melanoma.

Case Report

A 65-year-old male presented with a pigmented lesion on his left hip, that he had noticed for some months. On examination a 10 x 15-mm asymmetrically shaped dark brown macule was seen (Figure 1). Dermatoscopically the lesion show asymmetry of patterns and colours. Variegated light and dark brown reticular lines are seen in the periphery and white reticular lines in the centre. A structureless white area was extending to the periphery. An asymmetrical lesion with pigmented reticular lines in the periphery and white reticular lines in the centre, together with an eccentric white structureless zone strongly favours a diagnosis of melanoma with regression and dermal fibrosis. Another clue to melanoma is the occurrence of gray structures (Figure 2) [3]. The lesion was both clinically and dermatoscopically highly suggestive of melanoma and a diagnostic excision was performed. The histological sections showed broad and superficial zone of acanthosis with a reticulated pattern and clusters of mature sebocytes attached to the bases of the anastomosing rete ridges. Focal coalescence of sebaceous lobules and papillary dermis fibrosis are also seen (Figure 3). Based on this constellation of findings the diagnosis of RASD was rendered. Immunohistochemistry revealed intact DNA mismatch repair proteins (MLH1, MSH2, MSH6, and PMS2).

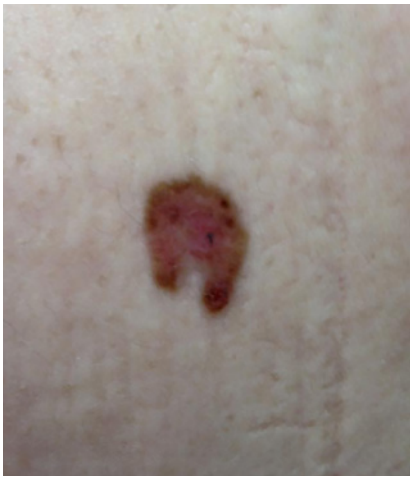

Figure 1. A 10 x 15 mm asymmetric brown macule on the hip of a 65-year-old male. [Copyright: ©2017 Ribeiro et al.]

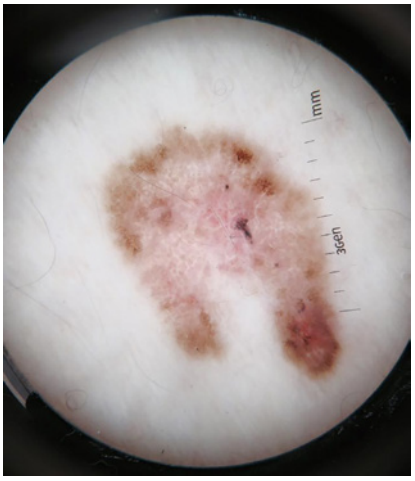

Figure 2. Dermatoscopic findings in an RASD mimicking melanoma. Pigmented reticular lines in the periphery. White reticular lines in the center extending into an eccentric white structureless zone. Gray structures. No yellow structures indicating sebaceous differentiation can be seen. [Copyright: ©2017 Ribeiro et al.]

Discussion

To our knowledge, this is the first case of RASD mimicking melanoma. There is only one previous report on dermatoscopic features of RASD, that shows some important differences compared to our case, most significantly the occurrence of yellow structures, implicating sebaceous differentiation, something that were not present in our case [1]. RASD may be rare; however, another possibility is that RASD has been misinterpreted as seborrheic keratosis, and not excised or not regarded as worth reporting [4]. The histology of the present case has all the features characteristic of RASD. Muir-Torre syndrome (MTS) is characterized by the presence of cutaneous sebaceous neoplasia, such as sebaceous adenoma, sebaceous carcinoma, and sebaceoma. Patients with MTS develop carcinoma of internal organs very frequently, mostly in the gastrointestinal system, and occasionally in the genitourinary system, and a single skin tumor with sebaceous differentiation can be a sign of MTS [5,6]. Immunohistochemistry has emerged as a practical screening tool for MTS. Mismatch repair proteins MLH1, MSH2, MSH6, and PMS2 are currently tested for this purpose [7]. Most sebaceous neoplasms in MTS lack expression of at least one of the above-

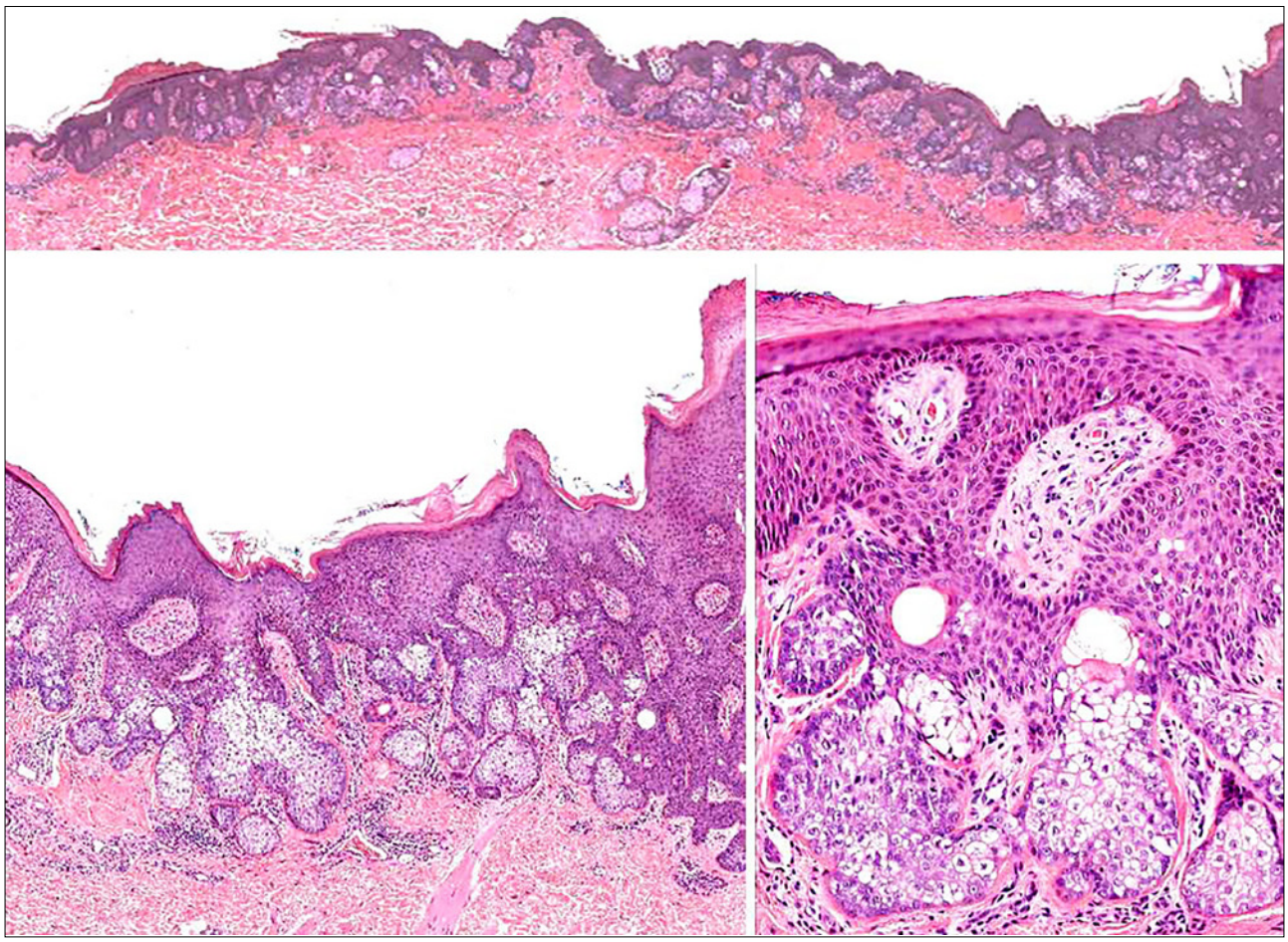

Figure 3. Dermatoscopic findings in an RASD mimicking melanoma. Pigmented reticular lines in the periphery. White reticular lines in the center extending into an eccentric white structureless zone. Gray structures. No yellow structures indicating sebaceous differentiation can be seen. [Copyright: ©2017 Ribeiro et al.]

mentioned proteins, while sporadic sebaceous neoplasms are expected to present all four proteins intact (positive) in the neoplastic cells' nuclei. Although the present case was clinically unlikely to be associated with MTS [8], a case of RASD has been recently documented in association with MTS [5]. Thus, immunohistochemistry was performed in order to rule out such association, and it revealed intact (positive) nuclear proteins, yielding a negative screening result for MTS. This immunoprofile is in agreement with most previous reports on RASD that studied mismatch repair proteins by immunohistochemistry.

In conclusion, we have presented the dermatoscopic findings in an unusual case of RASD and to our knowledge, we describe the first case of RASD mimicking melanoma both clinically and dermoscopically.

References

1. Ito T, Yoshida Y, Furue M, Yamamoto O. Dermoscopic features of reticulated acanthoma (superficial epithelioma) with sebaceous differentiation. *Eur J Dermatol.* 2012;22(5):704-706.
2. Haake DL, Minni JP, Nowak M, Abenoza P, Nousari CH. Reticulated acanthoma with sebaceous differentiation. Lack of association with Muir-Torre syndrome. *Am J Dermatopathol*. 2009;31(4):391-392.
3. Kittler H, Rosendahl C, Cameron A, Tschandl P. *Dermatoscopy. An Algorithmic Method Based on Pattern Analysis*. Vienna: Facultas Verlags, 2011.
4. Fukai K, Sowa J, Ishii M. Reticulated acanthoma with sebaceous differentiation. *Am J Dermatopathol*. 2006;28:158.
5. Shon W, Wolz MM, Newman CC, Bridges AG. Reticulated acanthoma with sebaceous differentiation: another sebaceous neoplasm associated with Muir-Torre syndrome? *Australas J Dermatol.* 2014;55 (4):e71-73.
6. Rothenberg J, Lambert WC, Vail JT Jr, Nemlick AS, Schwartz RA. The Muir-Torre (Torre's) syndrome: the significance of a solitary sebaceous tumor. *J Am Acad Dermatol*. 1990;23:638–640.
7. Jessup CJ, Redston M, Tilton E, Reimann JD. Importance of universal mismatch repair protein immunohistochemistry in patients with sebaceous neoplasia as an initial screening tool for Muir-Torre syndrome. *Hum Pathol.* 2016;49:1-9.
8. Roberts ME, Riegert-Johnson DL, Thomas BC, et al. A clinical scoring system to identify patients with sebaceous neoplasms at risk for the Muir-Torre variant of Lynch syndrome. *Genet Med.* 2014;16(9):711-716.