SHORT COMMUNICATION

Dermoscopic Features of a CRTC1::TRIM11 Cutaneous Tumour: A Case Report and Literature Review

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CRTC1::*TRIM11* cutaneous tumours (CTCT) are soft tissue tumours, first reported by Cellier et al. in 2018 and more recently described in the WHO Classification of Skin Tumors, 5th edition (1, 2). The *CRTC1* (CREB-regulated transcription co-activator 1) gene is located on the short arm of chromosome 19, while the *TRIM11* (Tripartite motif-containing 11) gene is located on the long arm of chromosome 1. CTCT is characterized by the translocation of *CRTC1*::*TRIM11* and is also referred to as a cutaneous melanocytic tumour with *CRTC1*::*TRIM11* translocation or cutaneous melanocytoma (2, 3). An accumulating number of cases are now bringing clarification of the clinical and pathological features associated with the tumour (2). However, to date, there have been no reports regarding dermoscopic features. We report a case of CTCT and present the dermoscopic features with reference to previous literature.

CASE REPORT

A 59-year-old woman with no history of trauma or significant medical problems had noted a nodule on the plantar side of her right foot 10 years previously. The nodule had been left untreated and had not changed in size. At the first visit to our outpatient clinic, a physical examination revealed a slight pinkish, dome-shaped nodule measuring 1 cm on the right plantar surface, with no associated symptoms (**Fig. 1**A).

Dermoscopy showed a homogeneous white central area with no vasodilation. Additionally, there was no pigmentary network around the nodule (Fig. 1B). A complete excisional biopsy was performed to confirm the diagnosis. Histopathologically, the epidermis above the tumour was irregularly elongated with orthokeratosis. A nodular lesion was present in the deep dermis, accompanied by surrounding fibrosis. The aggregated tumour cells were oval to spindle-shaped and showed mild nuclear atypia (Fig. 1C, D). Immunohistochemical staining revealed that the tumour cells were positive for Sox10 (Fig. 1E). and S100, and negative for HMB45 and PRAME. The break-apart fluorescence *in situ* hybridization (FISH) assay for EWSR1 confirmed a negative

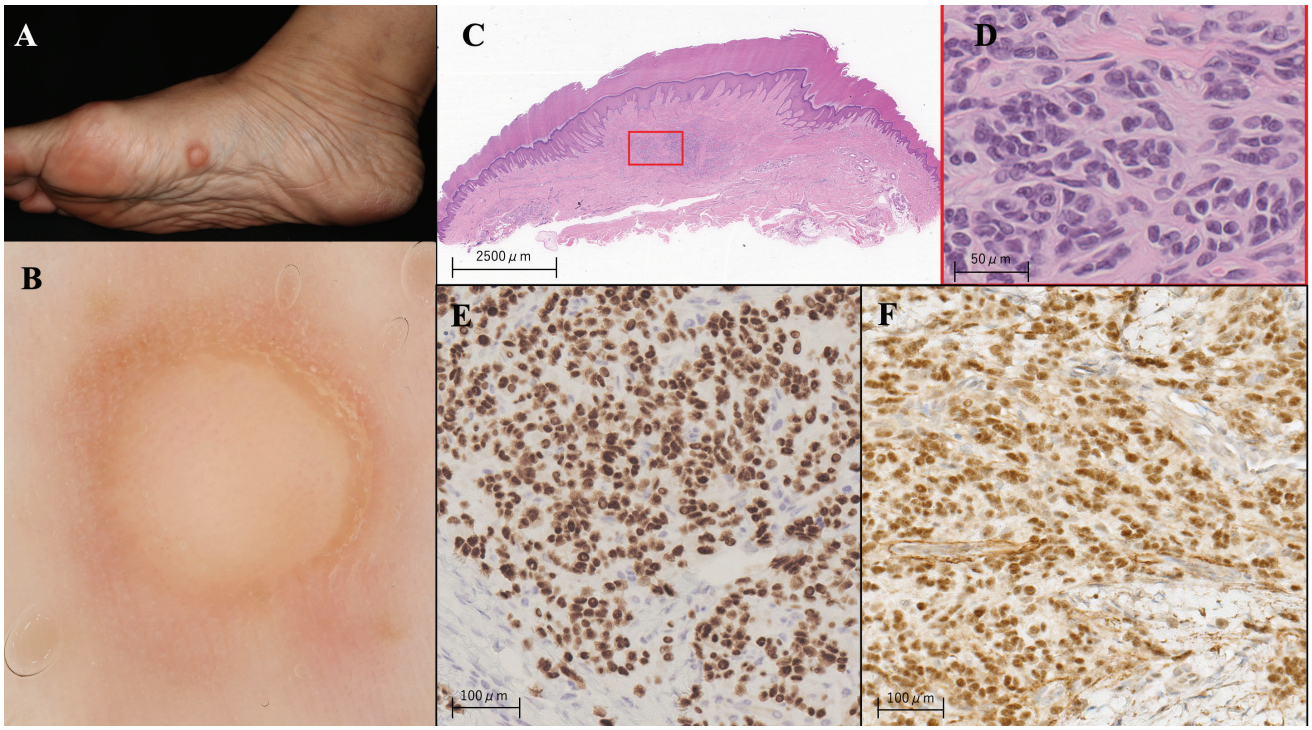

Fig. 1. (A) Physical examination revealed a solitary pinkish nodule measuring approximately 1 cm on the right sole. (B) Dermoscopy revealed a whitish homogeneous area without dilated small vessels over the entire nodule. (C) Histological features revealed a relatively well-circumscribed nodular lesion surrounded by fibrous tissue, located on the dermis with epidermal hyperplasia. Epidermal elongation was confined to the area directly above the tumour and was not significant at the margins. (D) The tumour was organized in small nests or strands composed of slightly atypical round to spindle-shaped cells (haematoxylin-eosin staining, original magnifications: [C] ×2; [D] ×200). (E, F) Immunohistochemically, most of the tumour cells were positive for Sox10 and TRIM11, while negative for PRAME: [E] Sox10; and [F] TRIM11.

result. Differential diagnoses of blue nevus, pigmented nevus, primary cutaneous melanoma (PCM), and clear cell sarcoma (CCS) were excluded based on these findings. Consequently, under the suspicion of CTCT, immunostaining for TRIM11 was performed, which was diffusely positive for tumour cells (Fig. 1F), leading to a definitive diagnosis. A systemic imaging study, including a PET scan, was performed, but no evidence of metastases was found. Therefore, a local extended resection was performed. No local recurrence or metastasis has been observed for 1 year.

DISCUSSION

CCS and PCM are well-known malignant melanocytic tumours that primarily occur in the dermis and exhibit aggressive biological behaviour (2). However, some previous reports have documented cases with intermediate or benign clinical courses, even among patients diagnosed with CSS or PCM, raising the possibility of alternative tumours (2). Although the biological behaviour of CTCT has not been fully elucidated, it seems that its clinical course is relatively more favourable than that of CSS and PCM (2). Therefore, we cannot rule out the possibility that some cases previously diagnosed as PCM or CCS in past reports with favourable prognoses may have actually been CTCT. With the diagnostic concept of CTCT now established, it is essential for clinicians to accurately differentiate between these conditions. Although CTCT is classified as a soft-tissue tumour, it could present a characteristic dermoscopic feature like dermatofibroma because its primary lesion is often predominantly located in the dermis (4). In the present case, the dermoscopic appearance revealed a central homogeneous whitish area to the tumour. This area is thought to reflect histological epidermal elongation and dermal fibrosis. To date, approximately 10 papers regarding CTCT have been published in English, which, together with all previously reported cases, brings the total to around 70 cases. Of these, 18 cases were documented with pathological photographs that included the epidermis (**Table I**), (1, 2, 3–8). Epidermal elongation was observed in 13 of the 18 cases, while peri-tumoral fibrosis of the dermis was noted in 8 of the 13 cases. Peri-tumoral vasodilatation was observed in only 1 out of the 8 cases. These findings suggest that the main dermoscopic feature of CTCT is a homogeneous white area in the centre of the tumour, reflecting both epidermal elongation and fibrosis in the dermis. In addition, they are less frequently accompanied by an increase in vascularity and vasodilation.

Further studies are needed to clarify these details.

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Table I. Literature review of histopathological features of the epidermis and tumoral stroma in CRTC1::TRIM11 cutaneous tumours

Citation	Cases	Epidermal hyperplasia	Fibrosis in the dermis	Telangiectasia
Cellier et al. (1)	1	+		
	2	+	+	
Hanna et al. (2)	3	+		N/A
	4	+	+	N/A
	5		N/A	+
	6		+	
	7	+	N/A	
	8	+		N/A
	9	+	N/A	N/A
	10	+	+	
	11	+		
Kashima et al. (3)	12	+	+	
Ko et al. (4)	13	N/A	+	N/A
Parra et al. (5)	14		+	N/A
	15			N/A
Vest et al. (6)	16	+	N/A	N/A
Tseng et al. (7)	17	+	N/A	N/A
Duan et al. (8)	18	+	+	N/A

N/A: not available.

The authors have no conflicts of interest to declare.

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