# Cutaneous mastocytosis: clinical, dermoscopic and pathological features

Arvind Kumar, <sup>1</sup> Naveen Kumar Kansal , <sup>2</sup> Ramesh Pratap Anuragi<sup>2</sup>

<sup>1</sup>Pathology, All India Institute of Medical Sciences, Rishikesh, India

<sup>2</sup>Dermatology and Venereology, All India Institute of Medical Sciences, Rishikesh, India

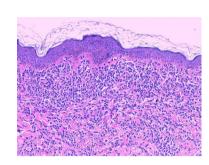
### Correspondence to

Dr Naveen Kumar Kansal; kansalnaveen@gmail.com

Accepted 18 November 2020

#### **DESCRIPTION**

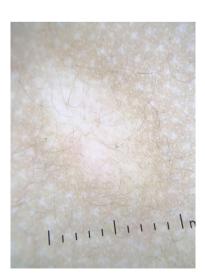
A 1-and-a-half-year-old boy was brought by his parents with intermittently itchy, round to oval, yellowish to skin-coloured maculopapules on the trunk for the last 1 year. The lesions were about 0.5×1 cm in size and were present on the chest, abdomen and back (figure 1). Stroking a lesion with a blunt object produced faint perilesional erythema with urtication (Darier's sign). There were no systemic reports. Clinical differential diagnoses of cutaneous mastocytosis (multiple mastocytomas) and juvenile xanthogranuloma were considered. Dermoscopy of a lesion revealed



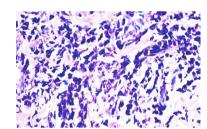
**Figure 3** Pathology. Diffuse infiltration of the superficial epidermis by mastocytes (H&E stain, original magnification, ×40).



**Figure 1** Round to oval, yellowish to skin-coloured lesions on the chest and abdomen.



**Figure 2** Dermoscopy. Central whitish area surrounded by a reticulate light brown rim on a yellowish background.



**Figure 4** Giemsa stain demonstrates metachromatic mast cell granules (original magnification, ×100).

a central whitish area surrounded by a reticulate light brown rim on a yellowish background (figure 2). A biopsy was taken for pathological examination, which revealed orthokeratotic epidermis with basal layer melanisation and diffuse infiltration by mastocytes in the superficial epidermis (figure 3). A Giemsa stain demonstrated metachromatic mast cell granules (figure 4). Therefore, based on clinical and dermoscopic features and pathological findings, a diagnosis of cutaneous mastocytosis (multiple mastocytomas) was made.<sup>1</sup> The patient was started on H<sub>1</sub>

## Learning points

- Cutaneous mastocytosis typically presents within the first few months of birth but a later onset is not uncommon. The lesions may urticate on stroking (Darier's sign).
- Dermoscopic features in cutaneous lesions of mastocytosis include a light brown rim, pigment network and yellow—orange blot.
- Pathological examination shows diffuse infiltration by mastocytes in the upper epidermis, which demonstrates metachromatic granules.



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To cite: Kumar A, Kansal NK, Anuragi RP. *BMJ Case Rep* 2020;**13**:e240169. doi:10.1136/bcr-2020-240169



## Images in...

antihistamines (syrup cetirizine 5 mg/5 mL, half teaspoonful at bedtime) which led to symptomatic improvement. The patient is on regular follow-up.

**Contributors** AK: concept, design, literature search, manuscript preparation and review. NKK: concept, design, literature search, manuscript preparation, review and guarantor. RPA: concept, design, manuscript preparation, review and guarantor.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Parental/guardian consent obtained.

Provenance and peer review Not commissioned: externally peer reviewed.

#### RCID iD

Naveen Kumar Kansal http://orcid.org/0000-0001-9214-3137

#### **REFERENCES**

- 1 Grattan CEH, Radia DH, et al. Mastocytosis. In: Griffiths C, Barker J, Bleiker T, et al, eds. Rook's Textbook of Dermatology. 9th edn. Oxford: John Wiley & Sons, 2016: 46.1–46.10.
- 2 Errichetti E, Stinco G. Dermoscopy in general dermatology: a practical overview. Dermatol Ther (Heidelb) 2016;6:471–507.

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