Dermoscopy of cutaneous Abrikossoff tumor (granular cell tumor) in a pediatric patient

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Key words: Abrikossoff tumor; dermoscopy; granular cell tumor; pediatric patient.

CLINICAL PRESENTATION

A healthy 6-year-old girl was referred to a university clinic of dermatology for evaluation of a 1-year history of an asymptomatic lesion on the lower aspect of her trunk. Clinical examination showed a pigmented nodule (Fig 1) that was extremely firm on palpation and not freely movable.

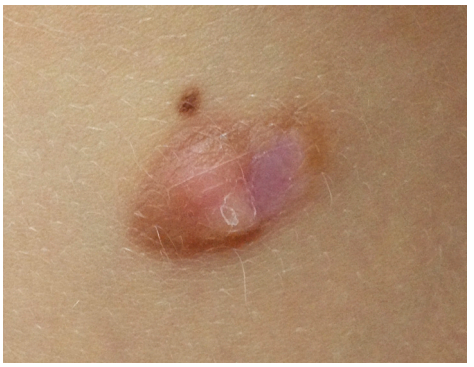

Fig 1. Granular cell tumor, clinical image. An oval, brownish-red nodule, measuring 13 × 8 mm. Right side of the nodule represents where biopsy was performed; initially, the nodule was dome-shaped.

DERMOSCOPIC APPEARANCE

Dermoscopically, the central part of the nodule was slightly yellowish in color surrounded by light-brown subtile pigment network and tiny circles (Fig 2).

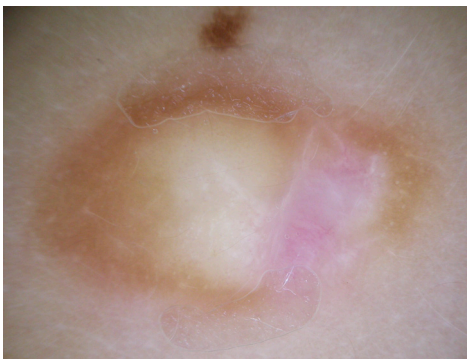

Fig 2. Granular cell tumor, dermoscopic image. Nodule showed yellowish center with lighter, hypopigmented lines, surrounded by light-brown subtile pigment network (thin blood vessels indicate area of biopsy). Note the numerous, tiny circles with lighter pigmentation at the periphery of the nodule (DermLite Photo; 3Gen LLC, Dana Point, CA).

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HISTOPATHOLOGIC DIAGNOSIS

Histopathological examination showed granular cell tumor (GCT) comprising nests of tumor cells with eosinophilic granules within the cytoplasm (Fig 3, *A*). Immunohistochemistry confirmed the diagnosis of GCT, staining positive for S100 protein (Fig 3, *B*).

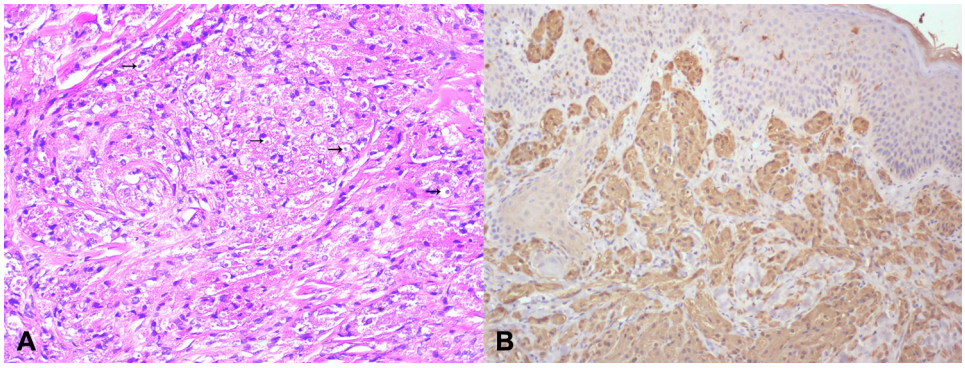

Fig 3. Granular cell tumor (GCT), histologic image. **A**, In the entire dermis are tumor nests separated by collagen bands. Tumor cells are polygonal or elongated with abundant granular cytoplasm, and rare, focal atypia (larger nucleoli, nuclear pleomorphism, spindled cells), mitotic activity (up to 6 mitotic figures/10 high-power fields), and Ki67 proliferative index: 3% (border value of atypical GCT). Note the pustulo-ovoid bodies of Milian, large granules surrounded by a clear halo (*black arrows*). (Hematoxylin-eosin stain; original magnification: ×200). **B**, Immunohistochemistry analysis showed positivity for protein S-100. (Original magnification: ×200.)

KEY MESSAGE

The GCT is a rare, usually benign, neoplasm of uncertain histogenesis that rarely affects children.[1] Clinical diagnosis of GCT is difficult and not usually considered. This article emphasizes the need for dermoscopy of persistent solitary nodules, even in pediatric patients, for early diagnosis and accurate treatment. The group of lesions including seborrheic keratosis, solar lentigo, dermatofibroma, supernumerary accessory nipple, and cutaneous mastocytosis[2] should be added to GCT as one more nonmelanocytic lesion that may be presented by network-like structures. The presence of a nodular lesion in combination with yellowish center, which is probably a result of abundant eosinophilic cytoplasm of tumor cells, peripheral network, and pale circles as potential correspondents to superficially localized bodies of Milian, should lead us to think about GCT and perform a biopsy to search for this rare, but potentially malignant, tumor (1%-2%).[1]

REFERENCES

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