Generalized milia-like calcinosis cutis in a child with Down syndrome: dermoscopic features

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To the Editor:

Milia-like calcinosis cutis (MLCC) is a rare skin disorder consisting of multiple whitish, firm milia-like papules mostly on hands and feet. In a majority of cases it is associated with Down syndrome [1,2]. Clinically, MLCC may be misdiagnosed as warts, molluscum contagiosum, and syringomas. Therefore dermoscopy may play an important role in distinguishing MLCC from more common differential diagnoses [3]. Herein, we report a 7-year-old boy with Down syndrome who presented with generalized whitish papules finally diagnosed as MLCC by dermoscopy and histology.

A 7-year-old boy with Down syndrome was referred to our clinic because of multiple whitish 2-3mm papules on his trunk, buttocks, and pubic area for 5 years (**Figure 1A**, **B)**. The papules were increasing in number during the last year and had recently appeared on his face. He had one cryotherapy session for these papules that were misdiagnosed as molluscum contagiosum by a previous physician. Because no improvement was achieved after cryotherapy and some lesions were worsened, he was referred to our clinic. Dermoscopy showed round, homogenously white structures and some papules showed a central crust in the center (**Figure 1C**, **D)**. Histopathology revealed multiple well-demarcated subepidermal calcified nodules composed of dense basophilic materials in papillary and upper dermis surrounded by some histiocytes (**Figure 2A)**. A biopsy taken from the papules with central crust revealed superficial epidermal ulceration with elimination of calcium deposits throughout epidermis leading to perforating appearance (**Figure 2B)**. Laboratory data including serum calcium, phosphorus, and parathyroid hormone (PTH) were normal.

Milia-like calcinosis cutis is a rare entity with a confirmed association with Down syndrome, although a few cases have been reported in patients without Down syndrome [4]. In 2004, Bécuwe et al. reviewed the prior cases of MLCC and found that two-thirds of the patients had Down syndrome [2]. A nearly equal sex distribution was noted and the mean age of the patients was 10.4 years. The clinical appearance was of whitish, firm milia-like papules mainly located on the hands and feet.

It is important to distinguish MLCC from similar more common disorders such as molluscum and milia. In recent years, studies have proposed useful dermoscopic features for differentiating MLCC from its similar counterparts. In 2013, Fox et al. proposed that in MLCC, dermoscopy reveals a subtle petaloid pattern that is not present in milia, wart, or molluscum [4]. In 2018, Kawaguchi proposed that the central crust found in white homogenous lesions, corresponds to the transepidermal elimination of calcinosis and can be considered as a unique distinguishing feature for MLCC [3]. In our case, dermoscopy showed round white homogenous structures in most lesions and some lesions had a central crust. In only one lesion a petaloid pattern was found. There are reports with no remarkable dermoscopic finding in MLCC other than white homogenous structures [5]. Although central crust and petaloid pattern may be found in

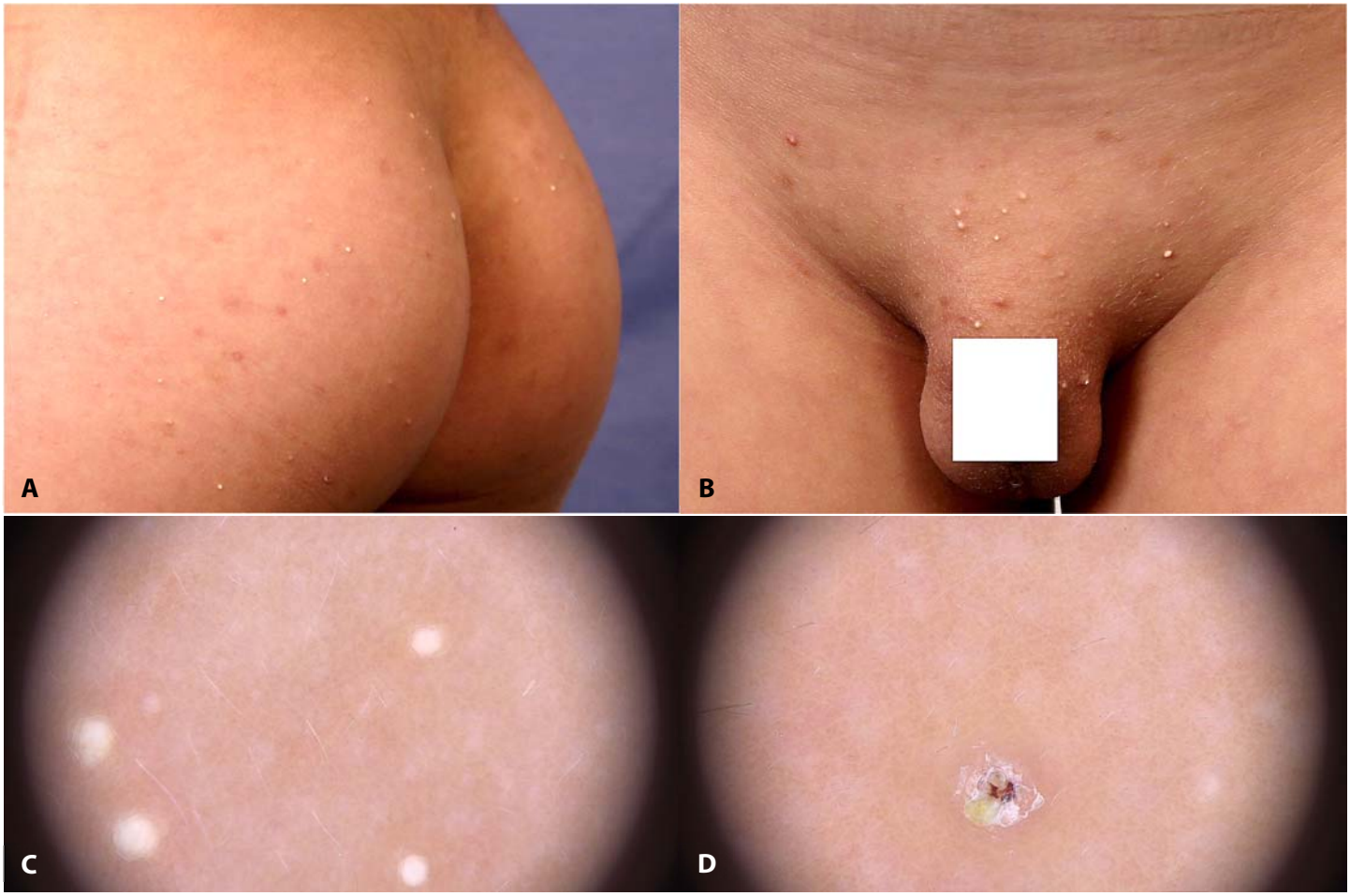

Figure 1. ***A), B)*** *Multiple whitish milia-like papules on buttocks and pubic area of a 7-year-old child with Down syndrome.* ***C)*** *Dermoscopic image showed white homogenous structures.* ***D)*** *Central crust observed in dermoscopy of some papules.*

dermoscopy of MLCC, these features are not present in the majority of lesions. Therefore, it is important to evaluate the dermoscopic features of multiple lesions in each patient to detect the more unique

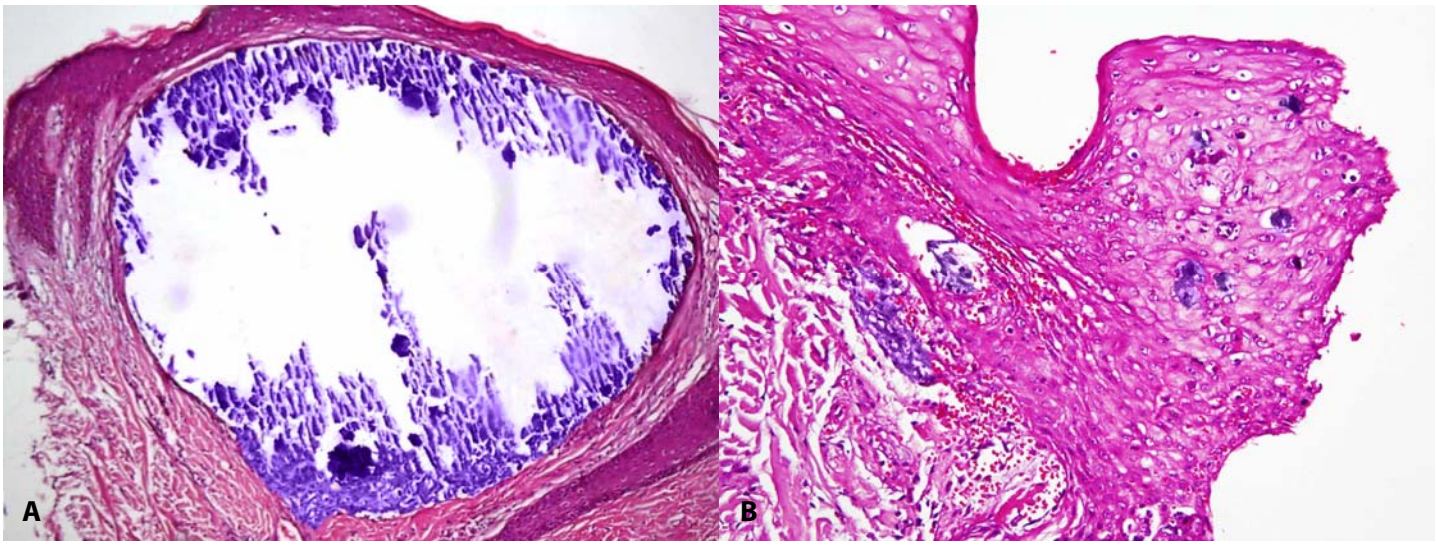

Figure 2. ***A)*** *Subepidermal calcified nodule with basophilic fragmented materials in papillary dermis surrounded by some histiocytes in lower portion. H&E, 10×.* ***B)*** *A focus of epidermal perforation with trans epidermal elimination of calcified salts throughout epidermis. H&E, 20×.*

features such as central crust or petaloid pattern to help distinguish from other entities.

Potential conflicts of interest

The authors declare no conflicts of interest

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