

## Facial solar porokeratosis

Sir,

Porokeratosis is a disorder of keratinization characterized histologically by a parakeratotic column, the cornoid lamella and clinically by

a distinct peripheral ridge.<sup>[1]</sup> Several variants of classical porokeratosis (porokeratosis of Mibelli) such as disseminated superficial actinic porokeratosis, porokeratosis palmaris et plantaris, punctate porokeratosis and linear porokeratosis have been described.<sup>[1]</sup> It would be inappropriate to classify superficial porokeratosis limited only to the face

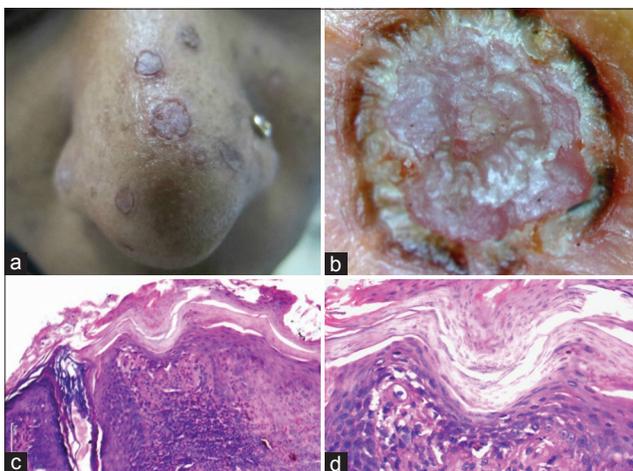
into the categories of superficial porokeratosis such as disseminated superficial porokeratosis or disseminated superficial actinic porokeratosis because these conditions exhibit involvement of other parts of the body, in addition to the face. Hence, such cases have been described under a new name, facial solar porokeratosis.

The first patient was a 24-year-old girl who presented with complaints of small, brown, flat to slightly raised lesions on the nose and cheeks for 1 year. The lesions were small to begin with and gradually increased in size with flattening of the central part of the lesion. There was a history of the appearance of new lesions mainly on the nose and paranasal area as well as spontaneous clearing of a few old lesions with scarring. The lesions were associated with mild itching which increased on sun exposure. There was no history of drug intake, irradiation or topical application of any drug or chemical. The patient had not taken any treatment. On examination, tan colored, flat-topped papules and plaques measuring 0.3–2.0 cm in diameter were seen, each with a surrounding thready border, mainly on nose and paranasal area, along with a few depressed punctate scars of previous lesions [Figure 1a]. On dermoscopic examination, a keratotic border surrounding a flat center was seen [Figure 1b]. Histopathological examination showed a keratin-filled epidermal invagination with a parakeratotic column, characteristic of a cornoid lamella and a mononuclear

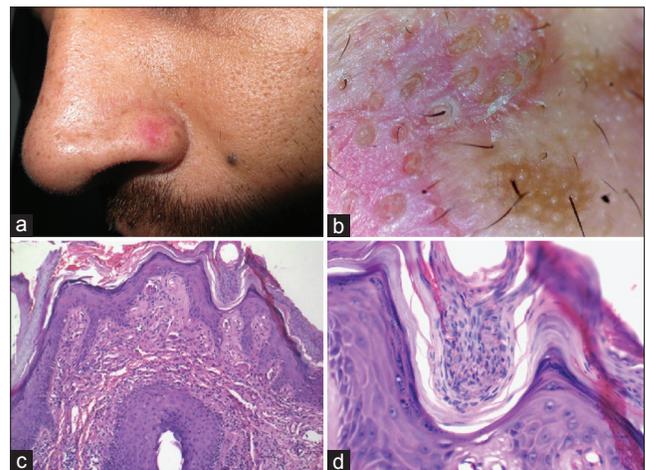
inflammatory infiltrate in the papillary dermis consistent with porokeratosis [Figure 1c and d]. The patient was treated with calcipotriol cream along with sun protection. The lesions showed remarkable improvement over 2 months.

The second patient was a 26-year-old man who presented with small, red, raised lesions on the lateral aspect of both alae of the nose for 2 years. The lesion first started on the right and slowly increased in size with central clearing and a raised periphery. This was followed by the development of a similar lesion on the left side. They were associated with slight itching and did not resolve with topical corticosteroid therapy. On examination, there were two 0.8 cm plaques, one on each ala having a depressed center and raised rim [Figure 2a]. On dermoscopic examination, a flat center and a surrounding keratotic rim was seen [Figure 2b]. Histopathological examination of the biopsy sample from one of the lesions showed a cornoid lamella with mild mononuclear infiltrate consistent with porokeratosis [Figure 2c and d].

Porokeratosis of Mibelli, and its most common variant, disseminated superficial actinic porokeratosis, are inherited as autosomal dominant traits. Lesions are most commonly located on the trunk and extremities.<sup>[2]</sup> Although facial lesions do occur in 15% of the patients with disseminated superficial actinic porokeratosis, exclusive facial involvement is rare.<sup>[2]</sup> Sharquie and Al-Baghdady



**Figure 1:** (a) Tan colored flat-topped plaques, each with a surrounding thready border on nose (b) dermoscopic image of nasal lesion showing thready border at periphery (c) Keratin-filled epidermal invagination with a parakeratotic column, cornoid lamella with a mononuclear inflammatory infiltrate in papillary dermis (H and E, ×100) (d) Higher magnification of the cornoid lamella (H and E, ×400)



**Figure 2:** (a) Papules on ala of nose having a depressed center and raised rim (b) dermoscopic examinations shows a flat center and a surrounding keratotic rim (c) cornoid lamella with mild mononuclear infiltrate (H and E, ×100) (d) Higher magnification of the cornoid lamella (H and E, ×400)

studied 15 patients with lesions occurring exclusively on the face, mainly the nose and adjacent perinasal area, induced and exacerbated by sunlight exposure and occurring predominantly in young women.<sup>[3]</sup> They described facial solar porokeratosis as a new variant that has a characteristic clinical and histopathological picture and can be distinguished from other varieties of porokeratosis.<sup>[3]</sup> Gutierrez *et al.* also noted similar features in their series of six patients.<sup>[4]</sup> There have been a few other reports of exclusive facial involvement in porokeratosis with skin lesions occurring mostly over or near the nose.<sup>[1]</sup> Facial solar porokeratosis is characterized by single to multiple skin colored papules to plaques ranging from 0.1 cm to a few centimeters in size, surrounded by a keratotic rim occurring most commonly on the distal part of the nose. Lesions can vary from superficial to destructive.<sup>[5]</sup> Histopathology of the hyperkeratotic rim shows a cornoid lamella, the classical feature of porokeratosis. Occasionally, there may be follicular distribution of the cornoid lamella in facial porokeratosis.<sup>[2]</sup> Dermoscopic examination of superficial actinic porokeratosis shows whitish-yellowish annular structures surrounding a pink-white scar-like area in the center. No specific treatment modalities have been mentioned for facial solar porokeratosis. Lesions might respond to topical steroids, calcineurin inhibitors, vitamin D3 analogs, cryotherapy, imiquimod or topical 5-fluorouracil especially if used in conjunction with sunscreens as a preventive measure.

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#### Conflicts of interest

There are no conflicts of interest.

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