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Multiple Nasal Papules in a 12-year-old Boy: A Quiz

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A 12-year-old boy with no significant past medical history presented with multiple nasal papules over the nasal bridge since the age of 3 years. The parents and patient observed aggravation with sweat and heat. Neither pruritus nor hyperhidrosis were reported. His family history was unremarkable.

Physical examination revealed 1–3-mm skin-coloured to bluish papulo-vesicles on the middle and lower nasal bridge (Fig. 1A). Dermoscopy showed, in addition to freckles, a homogeneous bluish pattern (Fig. 1B). A 2-mm punch biopsy from one of the lesions was performed and sent for histopathological evaluation (Fig. 2).

What is your diagnosis? See next page for answer.

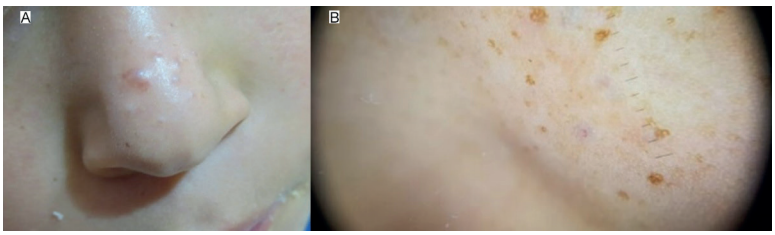

Fig. 1. (A) Skin-coloured to bluish papulo-vesicles, 1–3-mm in diameter, over the nose. (B) Dermoscopy revealed, in addition to freckles, a homogeneous bluish pattern. Parents gave consent to publish the photographs.

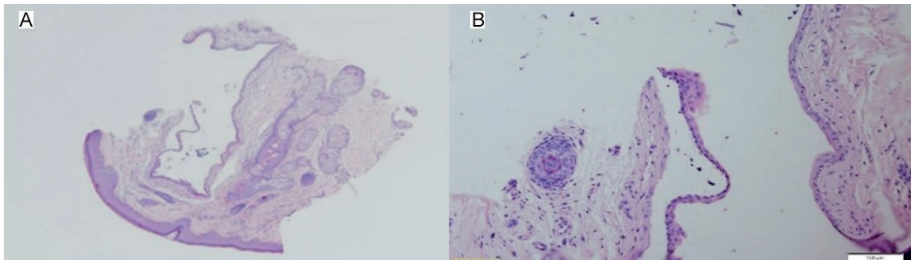

Fig. 2. (A) Histological examination of a lesion revealed a unilocular cyst in the dermis (haematoxylin and eosin (H&E) ×40). (B) The cyst wall was composed of 2 layers of cuboidal epithelium with eosinophilic cytoplasm (H&E ×100)).

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ANSWERS TO QUIZ

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Diagnosis: **Multiple nasal eccrine hidrocystoma**

Histopathological analysis revealed a unilocular cyst in the dermis (Fig. 2). The cyst was covered by 2 layers of cuboidal epithelium with eosinophilic cytoplasm. No decapitation secretion or periodic acid-Schiff positive granules were detected. The findings were consistent with eccrine hidrocystoma.

The patient was initially treated with topical atropine sulphate, 1% once daily, for several months without improvement. A trial of topical aluminium chloride, 20% once daily, was also without improvement.

Hidrocystomas typically present as translucent, skin-coloured to bluish cysts on the face, although they may occur in other sites. Hidrocystomas are traditionally divided into apocrine and eccrine, and classed as solitary (Smith type) or multiple (Robinson type). Eccrine hidrocystomas are thought to develop from cystic dilation of eccrine ducts due to retention of eccrine secretions. They enlarge with heat exposure or during the summer and regress with cooler temperatures (1).

Eccrine hidrocystomas are very unusual in children, as is their appearance on the nose (2). However, similar multiple eccrine hidrocystomas on the nose have been reported; to date, in only 3 children (2, 3). Increases in the number and size of the lesions were reported in these children during the summer.

The distinct presentation of grouped eccrine hidrocystomas on the nose in children is suggestive of a hamartoma-like disorder, possibly as the result of a localized developmental defect (3).

The differential diagnosis of small nasal papules in children includes comedones, pseudoacne of the nasal crease; consisting of acne-like lesions that arise during early childhood prior to the onset of puberty, angiofibromas, which are benign fibrous neoplasms comprised of a proliferation of stellate and spindled cells, thin-walled blood vessels with dilated lumina in the dermis, and concentric collagen bundles, as well as milia.

Due to aggravation by hot temperature and sweating, granulosis rubra nasi can also be included in the differential diagnosis. In contrast to multiple eccrine nasal hidrocystomas, granulosis rubra nasi is characterized by hyperhidrosis, with diffuse erythema and telangiectasia over the nose, and may also extend to the cheeks, lips and upper chin. Histopathologically, it is characterized by dilation of dermal blood and lymphatic vessels with perivascular lymphocytic infiltration and dilation of sweat ducts (4).

Many patients with eccrine hidrocystomas seek treatment for cosmetic reasons, despite the benign character of the lesions. Simple excision could be the treatment of choice for solitary lesions. Oral or topical anticholinergic agents have been shown to be effective, but may cause side-effects, such as nausea and blurred vision (5). Perilesional injections of botulinum toxin may be temporarily helpful, but are not feasible in young children (6). Treatment with flash-lamp-pumped pulsed dye lasers has shown variable success, whereas destructive methods, such as CO_2 laser vaporization or electrodessication, carry a risk of scarring (7).

In conclusion, we report here a new and rare case of multiple nasal eccrine hidrocystomas of childhood.

The authors have no conflicts of interest to declare.

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