

Multiple eccrine hidrocystomas of the face (Robinson type): Response to topical hyoscine butylbromide

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ABSTRACT

Multiple eccrine hidrocystomas are uncommon benign cystic lesions with a non-remitting clinical course marked by episodic erythema, a burning sensation, and exacerbations during warm weather, which is often distressing. Females are affected more often than males aged between 30 and 70 years. Surgical excision is curative for solitary lesions but most treatments for multiple lesions remain frustrating for both the patient and the clinician. This 47-year-old female with classic multiple eccrine hidrocystomas became completely asymptomatic after treatment with topical 0.5% hyoscine butylbromide without the adverse effects of anticholinergic drugs. It appears to be a safe, effective, and cosmetically elegant treatment option for multiple eccrine hidrocystomas, but needs further evaluation.

Key words: Anticholinergics; Eccrine hidrocystoma; Hyoscine butylbromide

INTRODUCTION

Eccrine hidrocystomas are rare, benign translucent cystic lesions originating from the eccrine duct with an estimated prevalence of 1 in 1000 skin biopsies. They usually affect females between 30 and 70 years of age more often than males, but can also occur in children and adolescents [1,2]. They may occur as solitary lesions—known as Smith-type—or multiple lesions—known as Robinson-type—named after their illustrators. Treatment in most instances remains unsatisfactory. We describe the case of a patient with multiple eccrine hidrocystomas and share our therapeutic experience.

CASE REPORT

A 47-year-old female had developed numerous lesions on the face over a period of two years. Initially around the eyes, the lesions progressed slowly to involve the entire face. Although asymptomatic, the lesions became prominent and erythematous during warm weather and the associated burning sensation was uncomfortable. Spontaneous improvement occurred

during cooler days. The rest of the patient's medical history was unremarkable and she denied any topical or systemic drug intake and the presence of similar problems in family members. Examination showed numerous smooth-surfaced, skin-colored, translucent lesions distributed predominantly over the periorbital skin and midface (Fig. 1a). A drop of clear serous fluid extruded when a lesion was punctured with a sterile needle. The mucous membranes, hair, nails, and a systemic examination revealed no abnormality. A complete blood count and serum biochemistry were normal. A biopsy of a skin lesion showed features of an empty cystic cavity lined with cuboidal cells in two layers, suggestive of eccrine hidrocystoma (Fig. 2). Topical 1% atropine ointment for bedtime application and a follow-up at two weeks was advised. However, the patient returned after four weeks feeling better and continued the prescribed treatment. She had developed dilated and fixed pupils with blurred vision and photophobia. Hyoscine butylbromide (Buscopan™) in a 0.5% concentration in calamine lotion was prescribed for twice daily topical application. The patient showed complete regression of the lesions on a four-week visit

How to cite this article: Dhatarwal N, Sondhi M, Mahajan VK. Multiple eccrine hidrocystomas of the face (Robinson type): Response to topical hyoscine butylbromide. Our Dermatol Online. 2021;12(3):307-309.

Submission: 24.07.2020; **Acceptance:** 26.09.2020

DOI: 10.7241/ourd.20213.19



Figure 1: (a) Multiple skin-colored translucent papules of variable sizes and tense cystic consistency involving the whole face. (b) Complete clearance of lesions four weeks after topical 0.5% hyoscine butylbromide in calamine lotion applied twice daily.

without adverse effects (Fig. 1b). She was counseled about the benign but recurrent nature of the condition and advised to continue treatment intermittently during warm weather and to follow up regularly.

DISCUSSION

Eccrine hidrocystomas are cystic lesions measuring around 1 – 3 mm and predominantly involving the face, mostly the periorbital area. They usually remit in winters but show worsening in summers. Their etiopathogenesis is poorly elucidated but is imputed to obstruction of the eccrine duct and retention of sweat, as is evident from cystic dilatation and flattening of the lining ductal cells or adenomatous proliferation of the excretory duct [1]. Clinically, a syringoma or an epidermal inclusion cyst may sometimes mimic this, but apocrine hidrocystoma remains a major differential diagnosis. Apocrine hidrocystomas are solitary, rarely multiple, lesions usually 3 – 15 mm in size appearing as dark blue and localized in the inner canthus near the eyelid margin, as well as the forearms, chest, axillae, and labia majora, and show no seasonal variation [2]. Histologically, a multilocular cyst in the dermis shows papillary projections, lined with secretory columnar and myoepithelial cells with decapitation secretion and diastase-resistant periodic acid–Schiff (PAS) positive granules. In contrast, eccrine hidrocystomas are usually unilocular and the cystic cavity is lined with two layers of cuboidal cells. They lack papillary projections, myoepithelial cells, decapitation secretion, and diastase-resistant PAS positive granules [2]. Graves' disease, Parkinson's disease, Schöpf–Schulz–Passarge syndrome, Goltz–Gorlin syndrome, craniofacial hyperhidrosis, and prolactinoma are rare associations [3,4]. The case described shows characteristic clinicopathological

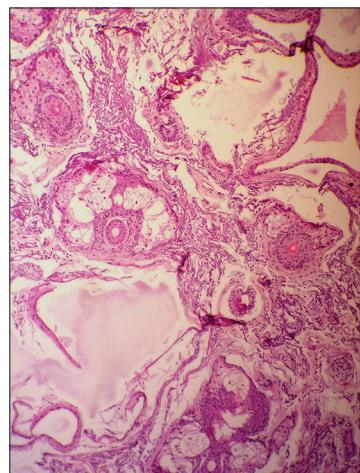


Figure 2: Multiple dilated unilocular cystic lesions with flattened cuboidal cells arranged in double rows unrelated to the surrounding eccrine glands (H&E, 40x).

features of multiple eccrine hidrocystoma without comorbidities.

Surgical excision of a small isolated lesion is curative but treatment of patients with multiple lesions remains largely unsatisfactory and recurrence occurs in up to 2.3% of cases [9]. Most cases have been treated with electrodesiccation, cryotherapy, microdermabrasion, needle puncture, lasers (pulsed dye, CO₂, erbium YAG) alone or in combination with isotretinoin, topical botulinum toxin type A, aqueous glycopyrrolate solution alone or in combination with microneedling, or oral oxybutynin with variable results [5-9]. However, these local ablative procedures are costly and pose risk of scarring. Topical atropine has been used for its anticholinergic effect, but may lead to mydriasis, blurred vision, and dryness in the mouth, as noted in our patient. Hyoscine butylbromide, or scopolamine, is another anticholinergic drug that blocks muscarinic receptors located on the gastrointestinal smooth-muscle cells to elicit an antispasmodic effect in abdominal cramps. The benefit of the use of its anticholinergic effect in treating multiple eccrine hidrocystomas remains under evaluation for the paucity of cases [9]. It provided symptomatic relief in our patient without the adverse effects associated with atropine. We feel that intermittent topical 0.5% hyoscine butylbromide is a low-cost, safe, effective, and cosmetically elegant treatment for multiple eccrine hidrocystomas, but its long-term use still needs further evaluation.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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Source of Support: Nil, **Conflict of Interest:** None declared.