Case Report

Eccrine Hidrocystoma: A Report of Two Cases with Special Reference to Dermoscopic Features

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Abstract

Eccrine hidrocystomas (EHs) are benign tumors, which arise as cystic dilatation of the eccrine sweat duct. The lesions of EH have a chronic course with periodic flares in summer months, associated with exacerbation in sweating. Diagnosis is mainly clinical with histopathology being confirmatory. Dermoscopy is a noninvasive tool, which may confirm diagnosis of EH without subjecting the patient to a biopsy. We report two representative cases of EH, with emphasis on dermoscopic features and which well responded to topical botulinum toxin-like peptide.

Keywords: Botulinum toxin-like peptide, dermoscopy, eccrine hidrocystoma

Key messages: Eccrine hidrocystoma was diagnosed by dermoscopy, without subjecting the patients to biopsy. These diseases well responded to topical botulinum toxin-like peptide, without recurrence. Therefore, we propose new diagnostic method and treatment modalities for well-established disease.

Introduction

Eccrine hidrocystoma (EH) is a benign cystic tumor, which occurs as a result of dilated ducts of mature eccrine sweat unit. It is characterized by a chronic course and summer aggravation.[1] Lesions are usually multiple (Robinson type), affecting the face in middle-aged women.[2] Dermoscopy is a well-established noninvasive diagnostic modality, which is being used in the diagnosis of many facial papular lesions such as EH. Characteristic dermoscopic features may preclude the necessity of performing a skin biopsy.

Case History

Case 1

A 44-year-old woman presented with multiple asymptomatic translucent skin-colored papules present over the nasal bridge, infraorbital region, and few over upper eyelid varying in size from 2–6 mm [Figure 1A]. She gave a history of aggravation in summer for the last 8 years. On puncturing the lesion with a sterile needle, clear fluid was noticed. Skin biopsy from most represented lesion revealed unilocular cyst lined by two layers of flattened cuboidal epithelium due to retention of sweat secondary to eccrine duct obstruction, without any evidence of decapitation in lining cells [Figure 1B]. Dermoscopy (performed by AM7013MZTS (4S) Dino-Lite Premier; AnMo, Taipei, Taiwan) showed whitish clod without crater along with multiple telangiectasias on nonpolarized mode [Figure 1C] and yellowish globules with multiple telangiectasias on polarized mode [Figure 1D].

Case 2

A 58-year-old woman presented with translucent to skin-colored papular lesion over periorbital region, with a few lesions in zygomatic area and cheek, varying in size from 1–5 mm for the last 6 years [Figure 2A]. Clear fluid was noticed on puncturing with a sterile needle. Skin biopsy from most represented lesion revealed unilocular cyst lined

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Access this article online

Quick Response Code:

Website: www.jcasonline.com

DOI: 10.4103/JCAS.JCAS_11_20

How to cite this article: Kumar P, Gandhi V, Kumari P. Eccrine hidrocystoma: A report of two cases with special reference to dermoscopic features. J Cutan Aesthet Surg 2021;14:118-20.

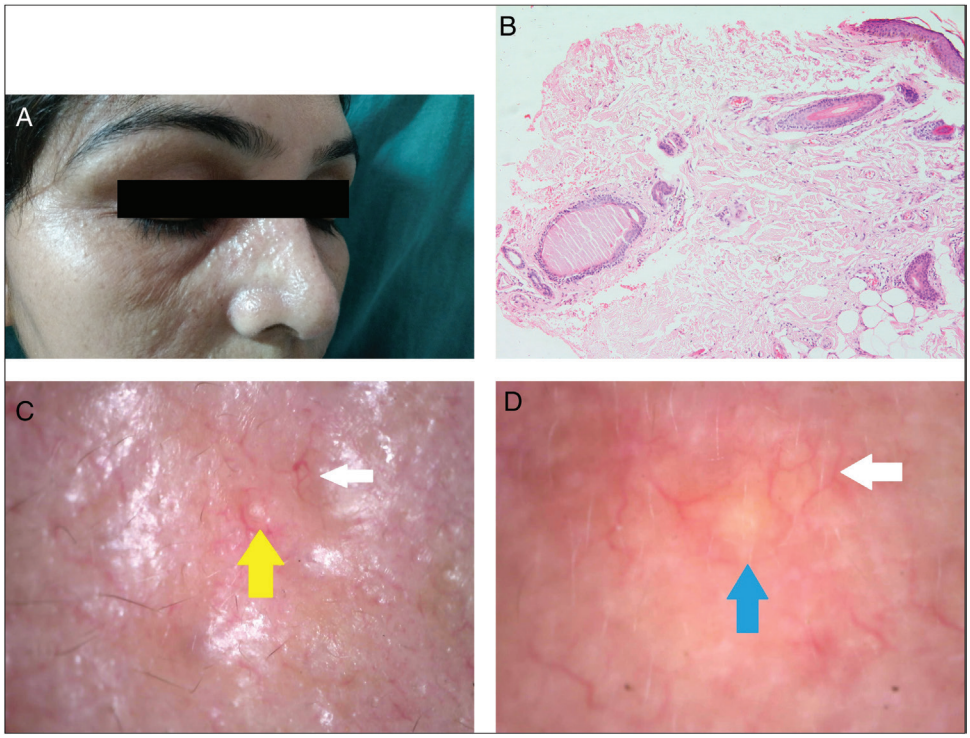

Figure 1: (A) Multiple translucent skin-colored cystic papules in centrofacial distribution (Clinical images taken by iPhone 6s, 12 megapixel camera). (B) Unilocular cyst lined by two layers of flattened cuboidal epithelium without any evidence of decapitation in lining cells (hematoxylin and eosin, ×100 magnification). (C) Nonpolarized dermoscopic image (×170 magnification) showed whitish clod without crater (yellow arrow) with multiple telangiectasias (white arrow). (D) Dermoscopy in polarized mode (×170 magnification) reveals yellowish globules (blue arrow) with multiple telangiectasias (white arrow)

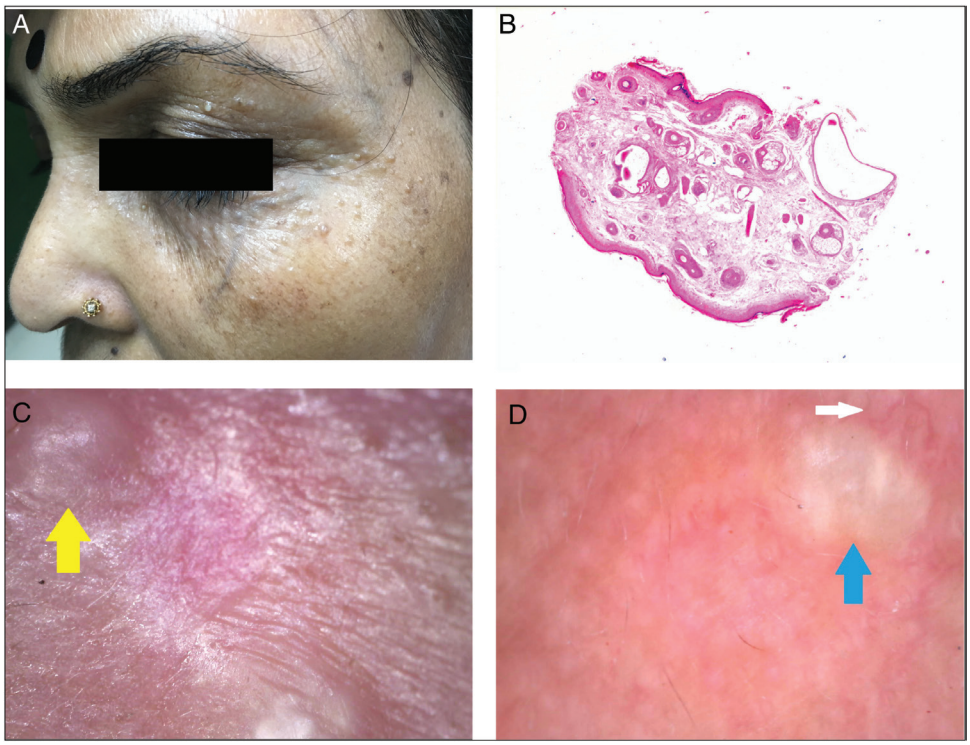

Figure 2: (A) Multiple translucent skin-colored, bluish cystic lesions in periorbital distribution, cheeks, and zygomatic region. (B) Unilocular cyst lined by two layers of flattened cuboidal epithelium without any evidence of decapitation in lining cells (hematoxylin and eosin, ×40 magnification). (C) Whitish clod (yellow arrow) without crater seen on dermoscopy (nonpolarized mode, ×170 magnification). (D) Yellowish globules (blue arrow) with multiple telangiectasias (white arrow) seen on dermoscopy (polarized mode, ×170 magnification)

Table 1: Dermoscopic features of eccrine hidrocystoma and their differential diagnosis

Differential diagnosis	Dermoscopic features
Eccrine hidrocystoma	Well-demarcated pseudocyst opening with vessel-free cystic lesion[1]
	Clear cyst with central crateriform indentation (nonpolarized) and faint pallor (polarized)[3]
	Well-demarcated homogenous bluish-purplish central area surrounded by pallor halo[4]
Apocrine hidrocystoma	Skin-colored, pink, yellow, or blue homogenous area that occupies whole lesion with arborizing vessels on its roof[5]
Eruptive vellus hair cyst	Central yellowish rounded lesions surrounded by gray circles[6]
Multiple trichoepithelioma	Arborizing telangiectasia and an ivory-white background[6]
Syringomas	Pigment network with a reddish tinge and occasionally rosette structures[6]
Basal cell carcinoma (nodulocystic)	Multiple blue-gray globules, maple leaf structure, spoke wheel areas, and arborizing telangiectasia[7]
Milia	Homogenous blue pigmentation and blue globules[8]

by two layers of flattened cuboidal epithelium without any evidence of decapitation in lining cells [Figure 2B]. Dermoscopy showed whitish clod without crater on nonpolarized mode [Figure 2C] and yellowish globules with multiple telangiectasias in polarized mode [Figure 2D]. Both cases were treated with topical botulinum toxin-like peptide (twice daily application). Almost complete clearance of lesions was observed in Case 2 after 6 weeks of treatment, but Case 1 could not come for follow-up.

Discussion

Robinson first described EH in women working in hot and humid environment.[3] EH presented with a benign cystic lesions of eccrine ducts with unknown etiology. Diagnosis of EH is usually confirmed on histopathological examination. Lesions are of cosmetic concern to female patients. A skin biopsy being invasive is usually not preferred by acceptable patient. Therefore, dermoscopy could be a tool for diagnosis without risk of scarring.[1,3,4] Dermoscopic features of EH have been previously described as depicted in Table 1.[1,3,4]

In our patients, dermoscopy of EH lesions showed whitish clod without crater on nonpolarized mode and yellow globules with multiple telangiectasias in polarized mode. Furthermore, it also helped in differentiating other similar lesions over face [Table 1].[5-8] The histopathological correlation of the whitish clod without crater and yellowish globules in different modes of dermoscopy, owing to the presence of unilocular cystic space situated within the dermis, is attributed to Tyndall effect. Different modalities have been proposed for the treatment of this condition with variable results, and recently topical botulinum toxin-like peptide has shown excellent results.[9]

To conclude, diagnosis of EH can be made by dermoscopic features, which are better appreciated in nonpolarized mode. Therefore, dermoscopy is a handy, useful bedside tool for the diagnosis of EH, which obviates invasive procedure such as skin biopsy.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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