

Dermoscopy of apocrine hydrocystoma: A first case report

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ABSTRACT

Apocrine hydrocystoma (AH) is a translucent, skin-colored to bluish dome shaped cyst on the face. AH mimics basal cell carcinoma (BCC), blue nevus, amelanotic melanoma requiring histopathological confirmation. Dermoscopy shows specific patterns in skin conditions. Dermoscopy of AH is not described in the literature. Authors evaluated dermoscopic patterns in AH and observed characteristic patterns corresponding to histological features. To the best of our knowledge, it is a first report in literature.

Key words: Dermoscopy; Apocrine hydrocystoma; Whitish strands; Histopathology; Patterns

INTRODUCTION

Apocrine hydrocystoma (AH) typically presents a translucent, skin-colored to bluish dome shaped cyst on the face, although it occurs in other sites [1]. It is not uncommon and occurs in adult life with no predilection for particular age group. Males and females are equally affected [2]. AH mimics basal cell carcinoma (BCC), blue nevus, amelanotic melanoma requiring histopathological confirmation [3].

Dermoscopy, a non-invasive technique shows specific patterns in skin conditions corresponding to histopathological changes and hence can be utilized in the diagnosis of melanocytic and non-melanocytic lesion [4]. Dermoscopy of AH is not described. Here, we evaluated dermoscopy of AH which showed characteristic patterns corresponding to histological features. To the best of our knowledge, it is a first report in dermatology literature.

CASE REPORT

A 56yr female presented with asymptomatic skin lesion on the right cheek since 6months. Examination revealed skin colored translucent nodule measuring

about 1x1 cm. Consistency was soft to firm (Fig. 1). Systemic examination was unremarkable. Blood analysis was within normal limits. Provisional diagnosis of AH, nodular BCC, pilomatricoma was made. Dermoscopy of the lesion was done using polarized dermoscopy and it demonstrated arborizing telangiectasia, brown pigment globules and whitish strands across the tumor (Figs. 2 and 3). Excisional biopsy was done and histopathology showed cystic dilatation of tumor and dilated blood vessels in the dermis. Cyst wall was lined



Figure 1: Skin colored translucent tumor on the right cheek.

How to cite this article: Ankad BS, Dombre V, Sujana L. Dermoscopy of apocrine hydrocystoma: A first case report. Our Dermatol Online. 2015;6(3):334-336.

Submission: 24.01.2015; **Acceptance:** 26.06.2015

DOI:10.7241/ourd.20154.89

by cuboidal cells with decapitation secretion into the lumen (Figs. 4 and 5). The histopathological features were consistent with AH.

Prior to the study, patient gave written consent to the examination and biopsy after having been informed about the procedure.

DISCUSSION

Dermoscopy is a noninvasive diagnostic technique and it was being employed for the purpose of diagnosis as well as screening of melanoma in a melanocytic lesion. Recently, its applications are expanded and it is being utilized in infectious, parasitic and inflammatory skin conditions [5].

As AH mimics other benign and malignant skin tumors including basal cell carcinoma and malignant melanoma, early diagnosis and treatment is of great importance.

In present study, dermoscopy of AH showed brown pigment globules arranged in a haphazard pattern, arborizing telangiectasia and whitish structures traversing across the tumor resembling tree branches.

Brown pigment globules observed under dermoscopy correspond to the melanin in the rete ridges or in the epidermis and they follow a particular pattern in each condition. In melanocytic nevus, globules are in network pattern, in BCC, there is absence of pigment network and regression of pigment is observed in melanoma [6]. However: in AH, it was not following

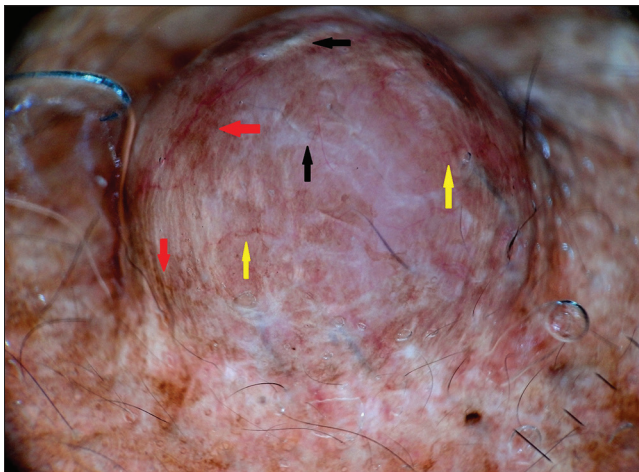


Figure 2: Dermoscopy showing brown pigment globules (red arrows), telangiectasia (yellow arrows) and whitish strands (black arrows).

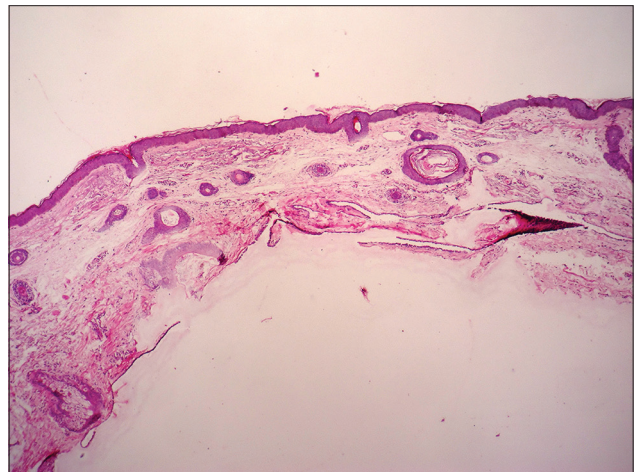


Figure 4: Histopathology showing cystic dilatation of tumor (H&E, 4x).

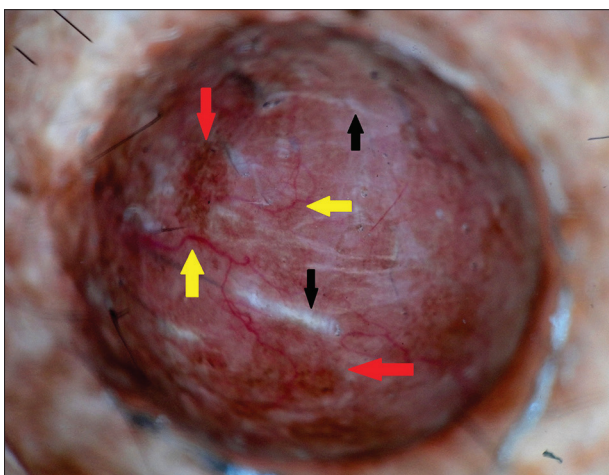


Figure 3: Dermoscopy showing haphazard arrangement of brown pigment globules (red arrows), arborizing telangiectasia (yellow arrows) and horizontal whitish strands across the tumor (black arrows).

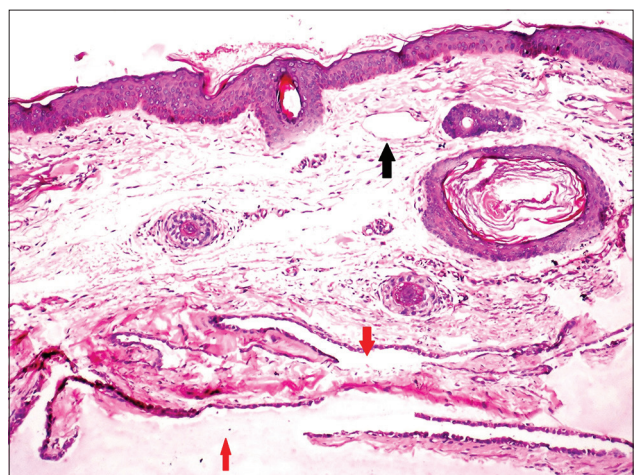


Figure 5: Histopathology showing cyst is lined by cuboidal cells with decapitation secretion (red arrows) and dilated blood vessels (black arrow) (H&E, 10x).

any specific pattern. Authors believe that irregular pattern of globules in AH may be because of stretching of epidermis as a result of cystic dilatation of tumor.

Telangiectasia represent dilatation of blood vessels in the dermis [7]. In AH, they were arborizing from base of tumor. Arborizing telangiectasia are also a feature of BCC. However other dermoscopic features such as leaf-like structures, milia-like cysts, erosions and blue-grey nests are characteristic of BCC [8]. They appear as 'hair-pin' pattern in keratinized lesion like warts [6]. And they are referred as 'crown vessels' because of their location in sebaceous hyperplasia due to pushing of vessels to the periphery by hypertrophic sebaceous glands [8]. Hence, dermoscopic patterns of blood vessels give a clue to the diagnosis.

Whitish strands or white chrysalis strands represent either fibrous septa or dense collagen in the dermis [6]. In pyogenic granuloma, whitish strands are in 'white rail lines' fashion surrounding reddish homogenous areas [9]. In dermatofibroma, they follow 'star burst' appearance at the centre [6]. In morphea and lichen sclerosis et atrophicus whitish structures are seen as chrysalis strands [10]. Therefore dermoscopy depicts the histological process. Furthermore, it indicates possible histological changes and enables clinical visualization with appropriate color and pattern.

CONCLUSION

Dermoscopy is a rapidly evolving diagnostic method in dermatology practice. Though, it is a simple technique, it adds dimensions in clinical diagnosis making better dermatologists. Dermoscopy of AH demonstrates specific patterns which are helpful in diagnosis. Hence, authors recommend use of dermoscopy in daily practice. However, it is first observation; further studies involving large sample size are recommended.

CONSENT

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

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