Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 4, 2021, Pages. 7113 – 7116
Received 05 March 2021; Accepted 01 April 2021.

Case Report – Apocrine Hidrocystoma Managed by Surgical Excision

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Abstract

Hidrocystoma are a benign cutaneous cystic tumor originating from the sweat gland. There are two classical variant of hidrocystoma namely apocrine and eccrine. Apocrine hidrocystoma arise from proliferation of apocrine secretory coil and eccrine hidrocystoma develops as a retention cyst of eccrine duct . Apocrine hidrocystoma characteristically presents as oval , domed shaped cystic lesion predominantly over face and rarely over scalp, chest and shoulder. Multiple apocrine hidrocystoma are rare and are associated with Goltz-Gorlin syndrome and Schopf-Schultz Passarge syndrome. Here we want to highlight a rare case of apocrine hidrocystoma over infraorbital region which was excised with no recurrence. Histological examination revealed characteristic decapitation secretion within multilocular cyst lined by double layer epithelium.
Keywords; Apocrine hidrocystoma, Eccrine hidrocystoma, Decapitation secretion, Benign cystic tumor , Surgical excision.

Introduction

Hidrocystoma are a benign cutaneous cystic tumor originating from the sweat gland (apocrine or eccrine). It is a rare condition affecting 30 to 70 years individuals, males and females are affected equally but multiple lesions are common in females comparatively and head and neck are the most common site involved(1). It presents as single or multiple small, thin-walled cysts. The periorbital or malar area is the most common location involved. Eccrine hidrocystoma may be single or multiple but apocrine hidrocystoma is usually solitary. Apocrine hidrocystoma presents

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as a large cystic lesion of size 3 to 15 mm whereas eccrine (Robinson type) presents as a small and tense lesion of size 1 to 6 mm tumors. Apocrine hidrocystoma is commonly located over the face but lesions may be present over the scalp, ear, chest or shoulder whereas eccrine hidrocystoma is usually located over the periorbital and malar region and other locations includes chest, neck, axilla, and palm. (2) Solitary apocrine hidrocystoma has no seasonal variation, but multiple lesions like eccrine hidrocystoma shows seasonal variation. Dermoscopic finding shows a homogenous pale gray or bluish pattern, whitish cotton wool-like structures, linear vessels, and nonconstant focal brownish-orange areas. Histopathological features include unilocular or multilocular cysts that are lined by the double lining of the epithelium with an inner layer comprising of large cuboidal or columnar cells with eosinophilic cytoplasm and oval or round vesicular nuclei at the base of these cells and an outer layer containing flat myoepithelial cells. Decapitation secretion is the hallmark of apocrine hidrocystoma. (3) Needle puncture is the alternative treatment, but local recurrence is frequently seen with this method. Cyst puncture followed by hypertonic glucose sclerotherapy is also one of the successful alternative treatments. Trichloroacetic acid injection after cyst puncture is also an alternative method to the surgical process. Botulinum toxin A has also shown effective results. The most widely used treatment for the apocrine hidrocystoma is surgical excision with narrow margins.

Material and Method:

Study setting

The study was be conducted in department of Dermatology at Datta Meghe Medical college, Shalinitai Meghe hospital and Research Centre (DMIMSU) Nagpur in central Indian .

Case

Thirty-seven-year-old women presented with domed shaped cystic lesion below the right eye which was asymptomatic, the lesion was present for the last 4 years and was gradually increasing in size. There was no seasonal variation and no similar lesion on any other body parts was present. Local examination revealed a solitary shiny skin colored with smooth surface ovoid domed shaped cystic nodule measuring 0.5 x 1 cm involving right infraorbital area 1 cm below and lateral to inner cantus. There was no eversion of the lower eyelid and vision was not affected. The lesion was movable, non-tender, and shows no telangiectasia on the surface. A provisional diagnosis of apocrine hidrocystoma was made and the lesion was excised in toto under local anesthesia under all aseptic precaution, Histopathogy showed, these findings were consistent with our diagnosis of apocrine hidrocystoma. There was no recurrence of the lesion even after 3 months of follow up

Discussion

Meheregan first described apocrine hidrocystoma in 1964 (4) Apocrine hidrocystoma is benign cystic tumors arising from the apocrine secretory coil. They characteristically present as domed shaped, well-defined, cystic nodule filled with clear fluid. It usually presents as a solitary lesion, commonly located around the eye and rarely seen on trunks and limbs. (2) Multiple apocrine hidrocystomata are uncommon and usually associated with inherited diseases like Goltz-Gorlin syndrome (focal skin atrophy, microphthalmia, microcephaly midfacial hypoplasia, malformation of the ears, mental retardation, and skeletal abnormalities) and Schopf-Schultz Passarge syndrome (multiple apocrine hidrocystomas along with hypotrichosis, hypodontia, and palmoplantar hyperkeratosis). Its incidence is found to be one per thousand. (5) Both apocrine

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and eccrine hidrocystoma are very rare benign skin tumors, some subtle clinical and histological feature helps us to differentiate between apocrine and eccrine hidrocystoma. Apocrine hidrocystoma presents as a large cystic lesion of size 3 to 15 mm whereas eccrine (Robinson type) presents as a small and tense lesion of size 1 to 6 mm tumors greater than 20 mm in diameter may be called giant apocrine hidrocystoma. Furthermore, apocrine hidrocystoma is skin-colored to bluish, dark blue in color and eccrine hidrocystoma is amber to brown or have a blueish hue. Apocrine hidrocystoma is commonly located over the face but lesions may be present over the scalp, ear, chest or shoulder whereas eccrine hidrocystoma is usually located over the periorbital and malar region and other locations includes chest, neck, axilla, and palm. Solitary apocrine hidrocystoma has no seasonal variation, but multiple lesions like eccrine hidrocystoma shows seasonal variation as it tends to be more in the hot and humid climate and may disappear in a cooler climate. Histopathological features include unilocular or multilocular cysts that are lined by the double lining of the epithelium with an inner layer comprising of large cuboidal or columnar cells with eosinophilic cytoplasm and oval or round vesicular nuclei at the base of these cells and an outer layer containing flat myoepithelial cells. Decapitation secretion is the hallmark of apocrine hidrocystoma. Histologically eccrine hidrocystoma appears as unilocular showing two layers of small cuboidal epithelial cells with no myoepithelial cells and no decapitation secretion differentiating it from apocrine hidrocystoma(6) Dermoscopic finding shows a homogenous pale gray or bluish pattern, whitish cotton wool-like structures, linear vessels, and nonconstant focal brownish-orange areas (7). Apocrine hidrocystoma should be differentiated from eccrine hidrocystoma (smith and Robinsons type) , miliem, epidermoid or pilar cyst or cystic basal cell epithelioma. Needle puncture is the alternative treatment, but local recurrence is frequently seen with this method. Cyst puncture followed by hypertonic glucose sclerotherapy is also one of the successful alternative treatments. (8) Trichloroacetic acid injection after cyst puncture is also an alternative method to the surgical process. Botulinum toxin A has also shown effective results(9) . Topical or oral atropine and topical scopolamine have also been tried in eccrine hidrocystoma with variable results.The most widely used treatment for the apocrine hidrocystoma is surgical excision with narrow margins(10) Our case had the typical morphology, histological features showing decapitation secretion of apocrine hidrocystoma which was successfully treated with local excision without any recurrence even at 3 months of follow up.

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Figure 1

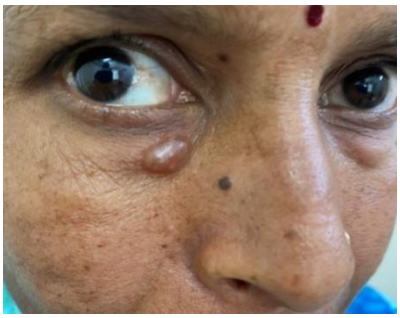

Figure 1 - Solitary shiny skin colored with smooth surface ovoid domed shaped cystic nodule measuring 0.5 x 1 cm involving right infraorbital area.

Figure 2

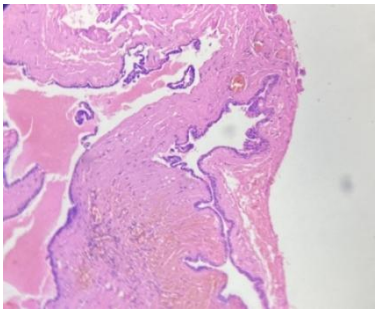

Figure 2– Histology of infraorbital apocrine hidrocystoma showing multilocular cyst with dermal epithelial layer lined by cuboidal cyst.

Figure 3

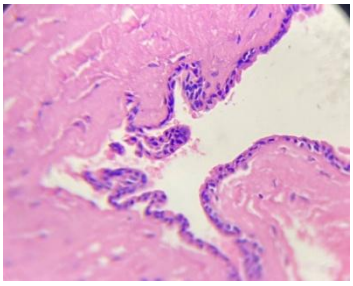

Figure 3- Histology of infraorbital apocrine hidrocystoma showing characteristic decapitation secreation