Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2016; 4(9A):3233-3235 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2016.v04i09.010

Original Research Article

Eyelid Hidrocystomas - A Histological Study

Dr. Kavitha Toopalli[1], Dr. Modini Pandharpurkar[2]
[1]Assistant Professor of Pathology, Sarojini Devi Eye Hospital / Osmania Medical College, Hyderabad, Telangana State, India.
[2]Associate Professor of Ophthalmology, Government Medical College, Nizamabad, Telangana State, India.

***Corresponding author**
Dr. Kavitha Toopalli
Email: toopalli@gmail.com

Abstract: Hidrocystomas are uncommon benign eyelid cysts. They arise from the eccrine and apocrine sweat glands in the eyelids. This retrospective study of five years is undertaken to know the incidence and histopathological features of hidrocystoma. Data from the clinical and histopathology records were retrieved and the slides reviewed. There were a total of 20 cases diagnosed ashidrocystoma out of a total of 450eyelid lesions, showing an incidence of 4.4%.The ages of the patients ranged from 22 years to 65 years. Males were predominantly involved (60%).Most of our patients presented with a solitary lesion. 80% of the lesions affected the lower lid. Histologically, they may be eccrine or apocrine type. Eccrinetype occurred predominantly (70%). The location of the lesion and the histopathological features help to differentiate hidrocystoma from other eyelid cysts such as epithelial inclusion cyst and cystic basal cell carcinoma. Complete surgical excision of the cyst wall is done to prevent recurrence.
Keywords: Uncommon; benign cyst; eye lid; cyst of moll; hidrocystoma

INTRODUCTION

Various types of sebaceous glands (Zeis and Meibomian) and sweat glands are present in the eyelid and each type of gland can develop a cystic pathology [1]. Eccrine sweat glands are widely distributed in the body whereas apocrine sweat glands are limited to regions such as axilla, nipple, external genitalia and eyelids [2]. The apocrine glands are larger than the eccrine glands and more numerous in the lower eye lid and their ductal openings are closely associated with eyelashes [3]. Eccrinehidrocystomas are small and tense thin walled cysts, ranging from 1 to 6 mm in diameter and can occur single or multiple lesions [4]. They are found predominantly in adult females and are located mostly on the periorbital region [5]. Eccrinehidrocystoma is believed to represent cystic dilatation of intradermal sweat ducts rather than a neoplastic proliferation [6].

MATERIAL AND METHODS

This retrospective study was carried out at the Department of Pathology, Sarojini Devi Eye Hospital, Hyderabad, Telangana State over a period of five years from July 2011 to June 2016. The clinical and histopathology records were retrieved and slides reviewed. During this period, a total of 450 biopsies of eye lid lesions were received.

RESULTS

Out of the total eyelid lesions received, benign lesions constituted 75%. Out of the benign lesions, hydrocystomas were twenty in number. There were twelve males (60%) and eight females (40%) in our study. The age of patients ranged from 22 to 65 years. Most lesions (95%) measured less than 10 mm in diameter and 75% were less than 5mm. In one case, the lesion measured 15mm.They appeared as clear cyst in most cases. Eccrinehidrocystoma and Apocrinehidrocystoma constituted the two histological types of hidrocystoma. Eccrine type constituted 70% and apocrine type constituted 30%. Histologically, eccrinehidrocystomas(Figs.1&2)are unilocular lined by bilayered epithelium whereas apocrine hidrocystomas (Figs.3&4) are unilocular or multiloculated, lined bybilayered epithelium with apical snouts, papillary projections and eosinophilic material in the lumen. All the cysts were completely excised.

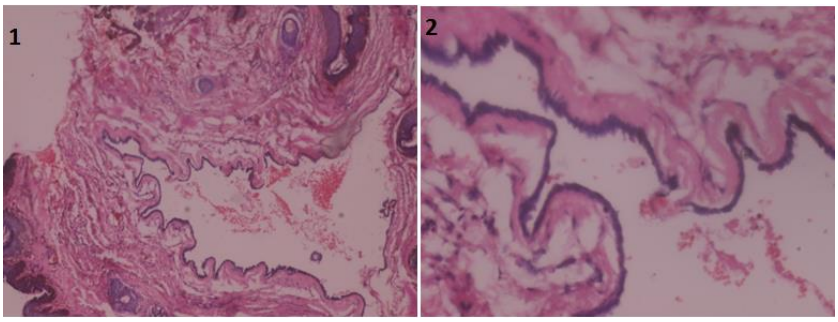

Fig-1&2: Histology of EccrineHidrocystoma showing a unilocular cyst lined by one to two layers of cuboidal epithelium

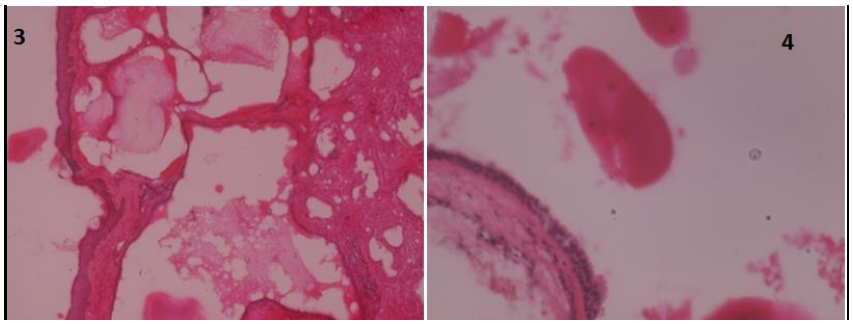

Fig-3&4: Histology of Apocrine hidrocystoma showing multilocular cyst, apical snouts of the inner lining epithelium and eosinophilic material in the lumen.

DISCUSSION

Benign adnexal lesions of the eye lid are much more common than malignant lesions [7]. In a series of 864 eye lid lesions 82% were benign [8]. In the study of AD Singh et al, eccrinehidrocystoma represented less than 5% of all eye lid biopsies. In our study, hydrocystomas constituted 4.4% of all eyelid lesions. Hydrocystomas predominantly affect females from the fourth decade of life, usually in the form of a single lesion [9-11]. In our study males were predominantly affected with with almost equal number of cases occurring in all age groups fromthird to seventh decade. Most of the cases presented as solitary lesions in our study. The usual site in our study is lower eye lid similar to the study of Duke Elder *et al*. [12]. Eccrine and apocrine hidrocystomas comprise the two main histological types. Apocrine hydrocystomas>20mm are called giant apocrine hidrocystomas [13]. The eccrinehidrocystoma characteristically occurs close to but does not involve the eyelid margin unlike apocrine hidrocystoma, as eccrine sweat glands are distributed throughout the eyeid skin [1]. Eccrinehydrocystomas appear as unilocular cysts on microscopic examination lined by one to two layers of cuboidal epithelial cells. Apocrine hydrocystomas may be unilocular or multilocular lined by inner single or bilayeredcuboidal to columnar epithelium with eosinophilic cytoplasm, typical apical projections and an outer myoepithelial layer [14]. Decapitaion secretion with PAS positive diastase resistant granules are seen in the lumen [15]. Papillary projections are seenwhich show a fibrovascular core [16]. Graves disease is associated with multiple hidrocystomaspossibly due to hyperhydrosis that diasappears after treatment of hyperthyroidism [17]. Differential diagnosis of hidrocystomas include epidermal inclusion cysts, hemangioma, lymphangioma, cystic BCC and chalazion[1,5]Apocrine hidrocystomas resemble basal cell carcinoma or melanoma clinically because of their blue black color due to the presence of lipofuschin pigment. Biopsy and subsequent histopathology differentiates these conditions. Treatment modalities include medical and surgical. Surgicaltreatment by excisionwith complete cyst wall removal prevents recurrence [18].

CONCLUSIONS

Hidrocystomas are benign cystic lesions that typically affect the eyelids. They are of two types histologically, eccrine and apocrine type. Though their incidence is less compared to other eyelid lesions, excision biopsy and histopathology is necessary to differentiate them from other benign and malignant cystic eyelid lesions.

REFERENCES

1. Singh AD, McCloskey L, Parsons MA, Slater DN; Eccrine hidrocystoma of the eyelid. Eye, 2005; 19(1): 77-79.
2. Warwick R, Williams PL; Gray's Anatomy 35th ed. Longman Group Ltd: Edinburgh, 1973; 1168−1169.
3. Warwick R; *Eugene Wolf's Anatomy of the End Orbit* 7th ed. H.K. Lewis & Co. Ltd: London, 1976; 195−197.

4. Alfadley A, Al Aboud K, Tulba A, Mazen M; Multiple eccrinehidrocystomas of the face. Int J Dermatol, 2001; 40:125–129.
5. KhashayarSarabi, BS, MSIV and Amor Khachemoune, MD; Hidrocystomas - A Brief Review Med Gen Med, 2006; 8(3): 57.
6. Smith JD, Chernosky ME; Hidrocystomas. Arch Dermatol, 1973; 108: 676−679.
7. Margo CE; Eyelid tumors: accuracy of clinical diagnosis. Am J Ophthalmol, 1999; 128: 635−636.
8. Kersten RC, Ewing-Chow D, Kulwin DR, Gallon M; Accuracy of clinical diagnosis of cutaneous eyelid lesions. Ophthalmology, 1997; 104: 479−484.
9. Schellini SA, Pinto APC, Marques MEA, Castilho CN, Achilles AB, Padovani CR; Hidrocistomaécrino e apócrinonapálpebra - CasuísticanaFaculdade de Medicina de Botucatu - São Paulo. An Bras Dermatol, 2001;76:283-288.
10. Schellini SA, Cardilo JA, Costa JP, Paro PT, Marques MEA, Silva MRBM; Lesõesbenignas e pseudoneoplásicasnaFaculdade de Medicina de Botucatu. Rev Bras Oftalmol, 1990; 49:324-31.
11. Sacks E, Jakobiec FA, Mcmillan R, Fraufelder F, Iwamota T; Multiple bilateral apocrinécystoadenomas of the lower eyelids. Ophthalmology, 1978; 94:65-71.
12. Duke-Elder S; System of ophthalmology - the ocular adnexa. London: Henry Kimpton, 1974.
13. Anzai S, Goto M, Fujiwara S, Da T; Apocrine hidrocystoma: a case report and analysis of 167 Japanese cases. Int J Dermatol, 2005; 44(8):702-3.
14. Vashi N, Mandal R; Giant multi-loculated apocrine hidrocystomas. Dermatol Online J, 2010; 16:16.
15. Greer CH; Ocular pathology. 3rd ed. London: Blackwell, 1979; 61-78.
16. Alagheband M, Maida MF; Asymptomatic periorbital, bluish cystic papule. Cortlandt Forum, 2004; 17:36–41.
17. Kim YD, Lee EJ, Song MH, Suhr KB, Lee JH, Park JK; Multiple eccrinehidrocystomas associated with Graves' disease. Int J Dermatol, 2002; 41:295–297.
18. Avinash P, Mridula P**,** Niranjan K, Grampurohit UV; Recurrent giant apocrine hidrocystoma of the eyelid: A case report. Egyptian Dermatology Online Journal, 2014; 10(1): 10.