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Ophthalomology

A CASE SERIES ON CONJUNCTIVAL CAPILLARY HEMANGIOMA

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ABSTRACT **Introduction:**The most common congenital vascular tumors that involute within the first decade of life are capillary hemangiomas, which are asymptomatic. Middle-aged males developing acquired capillary hemangiomas are rare. The inciting factors for acquired hemangiomas can vary from trauma, hormonal changes or exposure to irritating agents . We present a series of 5 cases of conjunctival capillary hemangioma in the age group of 30- 45years without any associated systemic disease or cutaneous lesion. **Materials and methods:** This study comprises of 5 patients with conjunctival capillary hemangiomas who attended Regional eye hospital, Kurnool during my study period of 1 year from 1/9/2022 to 30/9/2023. Patients presented to the OPD with complaints of growth on the conjunctiva, redness and foreign body sensation . The conjunctival growth in these patients was unilateral and confined to palpebral conjunctiva in 1 case and bulbar conjunctiva in the remaining 4 cases . Growth was excised and sent for histopathological examination. **Results:** 5 cases were identified in males in the age group of 30-45 years. 1 growth was pedunculated and the remaining 4 were sessile . There is no association with systemic disease or cutaneous lesion. On histopathological examination a fibrovascular collagen tissue was identified composed of small capillaries arranged in lobules separated by thin septa. Each capillary is lined by plump endothelial cells along with areas of hemorrhage showing features suggestive of capillary hemangioma **Conclusion:** Conjunctival vascular tumors are unilateral and benign. Each case has to be managed individually and observed for unusual patterns. Most of the conjunctival tumors are sessile and involve the bulbar conjunctiva. These lesions can be managed by observation . Similar lesions in elderly age should arouse a suspicion of malignancy. Lesions which show progressive growth can be managed by excision or by use of topical timolol

KEYWORDS : Conjunctival Vascular Tumors, Capillary Hemangiomas, Sessile, Pedunculated, Topical Timolol

INTRODUCTION

Conjunctival vascular tumors though incredibly rare in adults can develop at any age. Recurrence of these tumors in adults is rare . Every case of capillary hemangioma should be evaluated with an iota of suspicion for unusual characteristics[1].Most of the conjunctival vascular tumors are congenital and regress spontaneously. Despite their rarity, acquired capillary hemangiomas must be managed according to their size, extent, and preliminary diagnosis[1]. We present a series of 5 cases of conjunctival capillary hemangiomas which were excised and the diagnosis confirmed by histopathological examination

MATERIALAND METHODS:

A study was conducted for a period of 1year from 1/9/2022 to 30/9/2023 in the department of ophthalmology, Regional eye hospital, Kurnool medical college, Kurnool during which 5 patients with conjunctival capillary hemangiomas were identified. Patients presented to the OPD with chief complaints of conjunctival growth, redness and foreign body sensation. The growth was unilateral in all the cases. visual acuity was found to be 20/20. Anterior segment evaluation revealed presence of a sessile growth which appeared as a slightly elevated reddish lesion surrounded by slightly dilated network of blood vessels on the bulbar conjunctiva in 4 cases and a pedunculated reddish brown growth with a stalk in the palpebral conjunctiva in 1 case. Intraocular pressure and posterior segment examination was normal. The conjunctival growth was excised and sent for histopathological examination which showed features suggestive of capillary hemangioma

Figure 1: Pedunculated capillary hemangioma

Figure 2: sessile conjunctival capillary hemangioma

RESULTS:

5 cases with conjunctival capillary hemangioma were identified in males. The most common location was found to be the bulbar conjunctiva however 1 case of capillary hemangioma involving the palpebral conjunctiva has been identified. 4 cases of acquired sessile conjunctival capillary hemangiomas and 1 case of pedunculated conjunctival capillary hemangioma have been identified indicating that acquired sessile conjunctival capillary hemangioma is more common. There were no systemic or ocular findings that were associated with acquired conjunctival capillary hemangioma. Histopathological analysis revealed a fibrovascular collagen tissue composed of small capillaries arranged in lobules separated by thin septa. Each capillary is lined by plump endothelial cells along with areas of hemorrhage showing features suggestive of capillary hemangioma

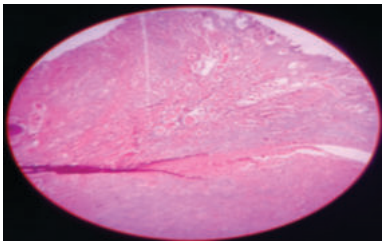

Figure 3 : Histopathological report of excised conjunctival tumor

DISCUSSION:

A haemangioma is a developmental abnormality of blood vessels and is an example of a hamartoma [11]. Conjunctival capillary hemangioma is a rapidly developing tumor derived from endothelial cells[4] . Based on the age of presentation hemangiomas are further categorized into congenital, infantile and acquired The majority of conjunctival hemangiomas documented are congenital, asymptomatic and involute by the age of seven[5].They might show up alone or in association with retinal haemangiomas, as in Sturge-Weber syndrome[1]. When this lesion is pathologically examined, it typically has an intact surface epithelium and positive markers for vascular endothelium and pericytes (such as CD31, CD34, and IA-4)[6,7]. A retrospective study on conjunctival vascular tumours in 140 patients by Shields *et al* found the tumours to be typically prevalent in adults with the exception of capillary haemangioma and glomangioma[7]. The literature contains very few reports of acquired capillary haemangiomas.

Although congenital lesions usually subside on their own, topical timolol eyedrops have also been reported to cause regression[2].Beta blockers work rapidly by means of constriction of the blood vessels. During the proliferative phase, it inhibits growth factor, and subsequently, by inducing apoptosis, it results in the involution of haemangiomas[8]. The current therapy options include systemic and intralesional steroids, bleomycin,oral propranolol, topical timolol maleate, interferon-alfa,laser treatment and surgical excision[10].

CONCLUSION:

Although congenital lesions usually subside on their own, topical timolol eyedrops have also been reported to cause regression[2]. These congenital conjunctival capillary hemangiomas can occur in isolation or occur in association with PHACES syndrome.

Acquired conjunctival capillary hemangiomas in adults are rare. The cause for acquired haemangiomas can vary from trauma, hormonal changes or exposure to irritating agents[3]. The management of each case has to be individualised . Most of the cases are asymptomatic and can be managed by observation and regular follow up. The probable diagnosis, size, and spread of these lesions have an effect on treatment[4,5].Based on suspicion, tumor growth, and nature, several alternatives include serial monitoring, incisional/excisional biopsy, cryotherapy, chemo/radiotherapy, modified enucleation, and exenteration can be considered[4,5].Excisional biopsy yields good results as it helps in prompt diagnosis and appropriate management [4,5].

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