

A rare case of bilateral limbal compound naevus

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ABSTRACT

Pigmented naevi or moles are extremely common lesions which are often flat or slightly elevated lesions, rarely they may be papillomatous or pedunculated. Most naevi appear in adolescence and in early adulthood due to hormonal influence but rarely may be present at birth. They are mostly tan to brown and less than 1cm in size. There are many histological variants of naevi like lentigo, junctional naevus, blue naevus, intradermal naevus and compound naevus. Naevi can be seen in any part of the body including conjunctiva. But bilateral presentation is very rare. Conjunctival naevi are common pigmented or non pigmented lesions usually presenting as grey, gelatinous, brown or black, flat or slightly raised nodules on the bulbar conjunctiva, mostly near the limbus. Here we present a case of bilateral conjunctival naevus in a young female which is a rare condition.

Keywords : Limbal mass, Bilateral, Slowly progressive, Naevus

INTRODUCTION

Conjunctival naevus usually becomes apparent in the first and second decade of life as a group of small nests of pigmented epithelial cells in the basal layer of the epithelium¹ and they are usually unilateral². As the cells migrate into the underlying stroma in the second to third decade, the naevus progresses to become the compound naevus. Further migration occurs, and cells reside in the stroma as sub-epithelial naevus during the third and fourth decades. Although most conjunctival nevi are pigmented (84%), some may be amelanotic or partially pigmented (16%)³. Conjunctival naevi are mostly located near the limbus in the interpalpebral area (72%)^{1,2,3}.

Other locations are the caruncle, semilunar folds, fornix, tarsus, and cornea^{3,6,7}. Characteristic clear cysts strongly support the diagnosis. It can vary in size, colour, and location. Conjunctival naevus can increase in size in growing young children, during puberty, pregnancy, and sun exposure. Malignant transformation was estimated to be <1%. Sudden increase in size, alteration in colour, and increased thickness with prominent feeding vessels indicates malignant transformation^{4,5}. Irregular and diffuse growth pattern poses a diagnostic confusion with primary acquired melanosis (PAM), melanoma, lymphoma, and pigmented Ocular surface

squamous neoplasia (OSSN)^{5,6,7}. Histopathologically, a conjunctival naevus is composed of nests of benign melanocytes in the stroma near the basal layers of the epithelium^{1,2,6,7}. Gerner and colleagues suggested that naevi should be treated according to the following rules: (1) naevi of the fornix and tarsal conjunctiva should be excised; (2) bulbar conjunctival naevi (including limbal and caruncular naevi) should be excised if showing significant growth, neovascularization or nutrient vessels, inflammation, increased or changed pigmentation; (3) excision should be performed in all cases of recurrences and (4) all excised tissue should be histopathologically examined⁷.

CASE REPORT

A forty years old female patient presented to Ophthalmology OPD with chief complaints of blackish mass around the black part of both eyes for past two years, for which she was taking treatment but not to avail. The mass was smaller in size initially and gradually progressed to the present size. It was not associated with any pain or watering but mild itching sensation was present.

Past history, family history and general examination was not significant. Ocular examination revealed her visual acuity in Right eye (RE) - 6/12 and Left eye (LE) - 6/24. Best corrected visual acuity (BCVA) in both eyes is 6/6. Gross examination revealed a greyish white mass in both eyes at lower limbus irregular in shape and surface with few cystic spaces. In RE it was 8x5x2mm in size from 6'o clock to 10'o clock and extending 1-2mm in to the cornea. In LE it was roughly 6x3x3 mm in size extending from 2'o clock to 9'o clock at the lower limbus and extending upto 3mm in to the cornea. They were sessile and fixed to the eyeball and nontender. In LE cornea showed nebular opacity of size 2x2mm at 6'o clock midway between limbus and pupil (Figure 1). Rest of the ocular findings like anterior chamber, iris, lens and fundus examination was normal.

Based on the above findings a diagnosis of conjunctival limbal naevus was made. The lesion in both eyes was treated by wide excision under local anaesthesia and the tissue was sent for histopathology which confirmed the diagnosis of conjunctival compound naevus (Figure 2). Postoperative period was uneventful and there was no recurrence upto three

months followup (Figure 3).



Figure 1: Preoperative photograph showing bilateral limbal swellings

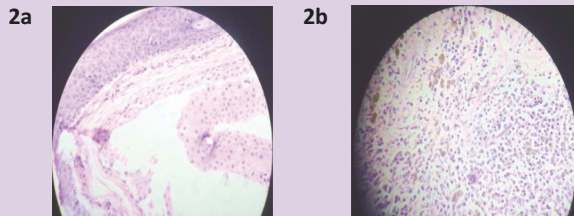


Figure 2: Histopathological features suggestive of compound naevus are seen [H&E,x40]



Figure 3: Postoperative photograph following bilateral excision

DISCUSSION

Conjunctival naevus is fairly common benign tumour of conjunctiva which manifests in second and third decades of life. It is more common in Caucasians than in Africans (6%) and Asians (5%)¹. Conjunctival naevi are usually solitary, well circumscribed, and freely mobile. A naevus near the limbus is usually almost flat. Those appearing elsewhere tend to be elevated⁷. In our case the limbal naevus is elevated and its bilateral simultaneous occurrence is rare. When search was made in pubmed for simultaneous bilateral presentation no reference was found. So this case is reported because of its bilateral presentation.

In this patient the disease process was thought to be allergic elsewhere and the patient was kept on anti allergic treatment for a long time which neither relieve the symptoms nor stopped the progression. Naevi are benign and require only periodic follow-up. Biopsy should be performed and cryotherapy applied to the cut edges if inclusion cysts are not found and the lesion is suspicious⁷. The presence of naevi on the palpebral conjunctiva or the forniceal conjunctiva is rare and should alert the clinician to the possibility of conjunctival melanoma. With growth spurts and tissue maturation, melanocytes may proliferate or increase pigment production.

Conjunctival epithelial cells within inclusions may proliferate and secrete extracellular material, enlarging the size of the cysts. As the naevus increases in volume, changes in hydration of the ocular surface causes irritation with secondary inflammation. Inflammatory cell infiltration further increases the size, elevation, and vascularity of the naevus. These alterations tend to provoke clinical concern that a malignant melanoma has arisen from the naevus, which has led to surgical excision of a large number of benign conjunctival naevi. The degree of pigmentation is variable in conjunctival naevi. Some naevi are totally amelanotic and when the lesion is small, the epithelial inclusions may predominate. As they enlarge or become inflamed, they may be confused with epithelial neoplasia such as squamous cell carcinoma. Inflamed juvenile conjunctival naevi contain epithelial cysts and solid epithelial islands associated with discrete lymphocytic aggregates, plasma cells, and eosinophils. There is often a history of allergy⁷. Our patient's last pregnancy was two years back which might have accelerated the disease progression as it is a known risk factor. Though the malignant transformation with compound naevus is very rare, patient should be regularly followed up for any recurrence.

CONCLUSION

Here is a rare case of bilateral limbal naevus treated by simple surgical excision with satisfactory results. Histopathological examination of the excised tissue confirmed the diagnosis of benign conjunctival compound naevus.

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