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Case Report

Recurrent conjunctival papilloma: Case report

Yashi Bansal^{1*}, Seema Dutt Bandhu², Umesh Sharma¹, Harkirat Kaur Sandhu¹,
Samreen Kaur¹

¹Dept. of Ophthalmology, Punjab Institute of Medical Sciences, Jalandhar, Punjab, India

²Dept. of Ophthalmology, Manipal TATA Medical College, Jamshedpur, Jharkhand, India



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ABSTRACT

Papilloma is a histopathological term describing specific morphology of tumors. Conjunctival papilloma is a benign growth that arises from the stratified squamous epithelium of the conjunctiva. Two cases of recurrent conjunctival papilloma who were operated and adjunctive therapy given are presented here. Both the cases had history of recurrence of conjunctival papilloma following excision. The extent of papilloma was different in both the cases. One case has minimal symptoms and lesion the inferior quadrant while the other was symptomatic in form of diminution of vision, watering, foreign body sensation, photophobia and blepharospasm with a lesion extending 270 degrees of limbal area and covering whole of the cornea. The management was same in both the cases : excisional biopsy in both the eyes under local anaesthesia, intraoperative cryotherapy and use of mitomycin C and post operative use of chloramphenicol and mitomycin c eye drops. Various treatment modalities have been described for management of conjunctival papilloma. These comprise conservative management, topical use of interferon alpha 2b, excisional biopsy and use of adjunctive treatment such as carbon dioxide laser, cryoablation and application of mitomycin C to prevent recurrence. This patient was managed with excisional biopsy along with adjunctive treatment in form of cryoablation and mitomycin c application to prevent recurrence.

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1. Introduction

Papilloma is a histopathological term describing specific morphology of tumors. Conjunctival papilloma is a benign growth that arises from the stratified squamous epithelium of the conjunctiva.¹ They can be classified as pedunculated or sessile. The pedunculated type is synonymous with infectious conjunctival papilloma and squamous cell papilloma. The sessile type is synonymous with limbal conjunctival papilloma as they are believed to arise from UV radiation exposure and are non infectious. A strong association exists between development of conjunctival papilloma and human papilloma virus (HPV) types 6 and

11.² These are known to occur both in children and adults with the highest incidence between 21 and 40 years and there is a male preponderance.^{3,4} The most common sites for conjunctival papilloma are bulbar conjunctiva,⁵ palpebral conjunctiva³ and caruncle.^{4,6}

2. Case Report

2.1. Case 1

A 60-year-old male presented with recurrent limbal conjunctival swelling in left eye. He had history of gradually increasing conjunctival swelling since six months. Patient gave history of excision of similar swelling at the same location 9 months back. The failure of first excision biopsy done 9 months back could be due to high recurrence rate of

* Corresponding author.

E-mail address: dryashibansal@gmail.com (Y. Bansal).

upto 27% seen in conjunctival papillomas. The patient did not have any major symptoms except for mild discomfort but he reported gradual increase in size of swelling. On examination, the swelling was present inferiorly from 5 to 8 o' clock position at limbus. The swelling was sessile and was encroaching towards cornea (Figure 1).

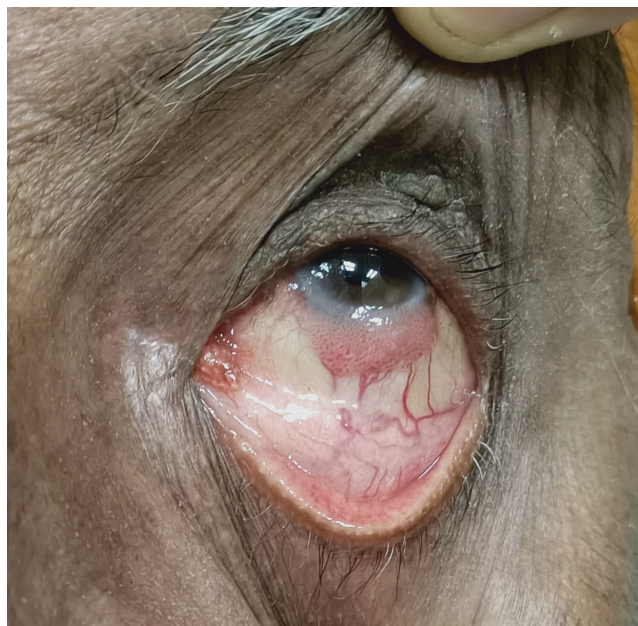


Figure 1: Pre operative image of conjunctival papilloma (case 1)

2.2. Case 2

A 70-year-old male presented with complaints of diminution of vision, watering, foreign body sensation, photophobia and blepharospasm. The patient had history of gradually increasing conjunctival growth since 9 months. The patient gave history of excision of similar swelling one and a half year back. On examination, his visual acuity was hand movements, conjunctival growth covering 270 degree of limbal area and extending over whole of the cornea was noticed (Figure 2).

Excisional biopsy of the swelling was performed under local anaesthesia. Excision was done with aim of clearing 1mm of normal conjunctival tissue. The swelling was found to be growing onto the cornea at the limbus. Limbal area was cleared with use of diamond burr. Double freeze thaw method of cryotherapy was applied at the base of remaining conjunctival tissue (Figure 3). Mitomycin C (0.3 mg/ ml) was applied to the base of the growth for 3 minutes (Figure 4). This was followed by copious irrigation and application of cryotherapy. The excised tissue was sent for histopathological examination which confirmed the diagnosis of benign conjunctival papilloma and confirmed marginal clearance of excised tissue. (Figure 5). Patient was started post operatively on chloramphenicol eye drops and



Figure 2: Pre operative image of growth with both conjunctival and corneal involvement (case 2)

mitomycin C eye drops (0.002%) for a period of 3 months to prevent recurrence.(Figure 6)

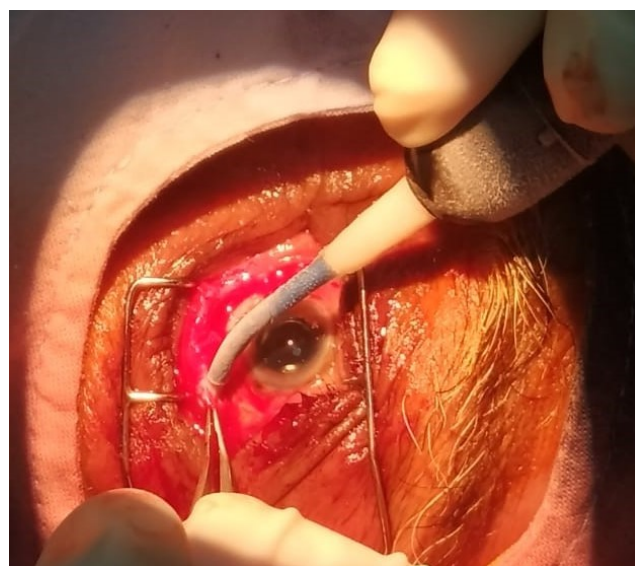


Figure 3: Intraoperative application of cryotherapy

Both the patients were followed over a period of two years. The patient in case 2 had remarkable improvement in symptoms and his visual acuity improved to 6/18 (Figure 7). There were no signs of recurrence of lesion. Both the patients are still being followed up for recurrence of lesions.(Figure 8)

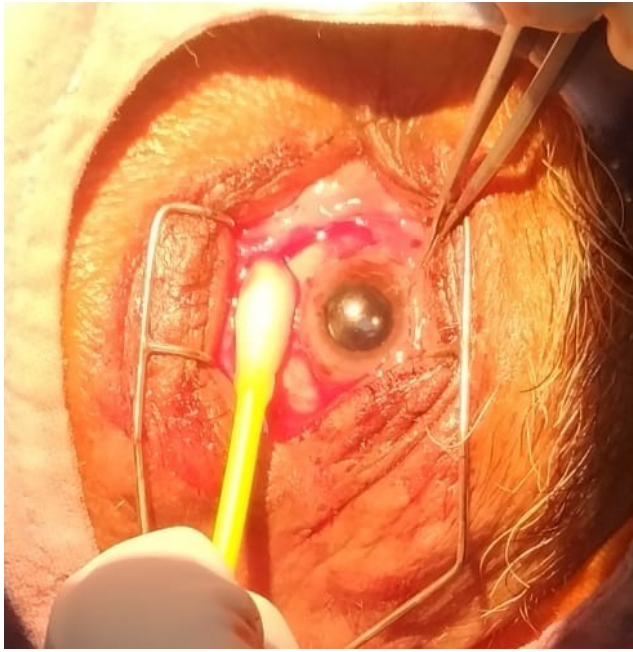


Figure 4: Intraoperative application of Mitomycin C

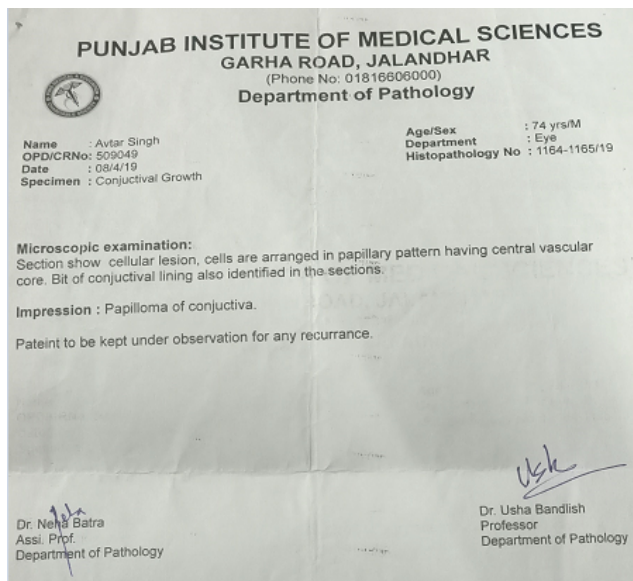


Figure 5: Histopathology report

3. Discussion

The recurrence rates of conjunctival papilloma has been reported to range from 3% to 27%.⁴⁻⁶ Various adjunctive therapeutic modalities have been described to prevent recurrence such as CO₂ laser, adjunctive cryotherapy, topical mitomycin C or interferon alpha 2b and post-operative use of oral cimetidine.^{3,4,7-13} Conservative treatment involves observation and reassuring the patient as lesions may regress spontaneously.¹⁴ Regression of

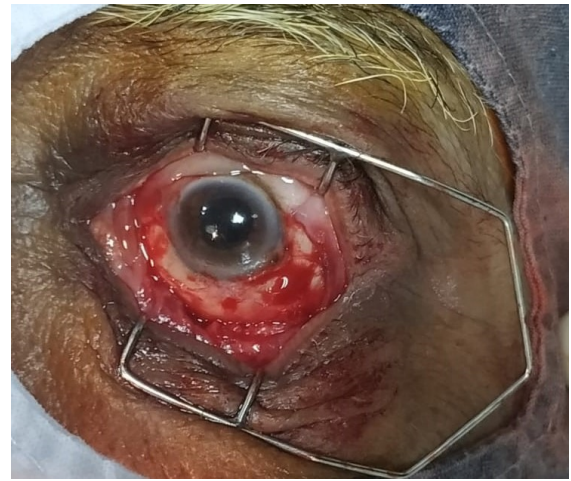


Figure 6: Immediate post operative image (case 2)



Figure 7: 6 months post-operative (case 2)



Figure 8: Post-operative image (case 1)

the lesion was observed after use of topical interferon alpha 2b in small to medium lesions.^{15,16} Cryotherapy is used as adjunctive therapy especially in recurrent lesions. Double freeze thaw method is preferred and it causes minimal scarring. Use of topical antimetabolites like Mitomycin C and 5 Fluorouracil has been reported to prevent recurrence. Co2 laser has been found to be safe and effective. Dinitrochlorobenzene (DNCB) is reserved for cases where other treatment modalities as surgical excision and cryoablation have failed.^{14,17}

4. Conclusion

Conjunctival papillomas are benign tumours with a minimal propensity toward malignancy. The risk is malignant transformation is noticed especially in papillomas with inverted growth pattern or recurrence.¹⁸ Long term surveillance is required in these patients.

5. Source of Funding

None.

6. Conflict of Interest


None.

References

- Farah S, Baum TD, Conlon MR, Alfonso EC, Starck T. Tumours of the cornea and conjunctiva. In: Principles and Practice of Ophthalmology. Pennsylvania: W.B Saunders; 2000. p. 1002–1021.
- Sjö NC, Buchwald CV, Cassonnet P, Norrild B, Prause JU, Vinding T, et al. Human papillomavirus in normal conjunctival tissue and in conjunctival papilloma: Types and frequencies in a large series. *Br J Ophthalmol*. 2007;91(8):1014–5.
- Sjö N, Heegaard S, Prause JU. Conjunctival papilloma. A histopathologically based retrospective study. *Acta Ophthalmol Scand*. 2000;78(6):663–6.
- Kaliki S, Arepalli S, Shields CL, Klein K, Sun H, Hysenj E, et al. Conjunctival papilloma: Features and outcomes based on age at initial examination. *JAMA Ophthalmol*. 2013;131(5):585–93.
- Ash JE. Epibulbar tumors. *Am J Ophthalmol*. 1950;33:1203–19.
- Huang YM, Huang YY, Yang HY, Tsai CC, Yu WK, Kao SC, et al. Conjunctival papilloma: Clinical features, outcome, and factors related to recurrence. *Taiwan J Ophthalmol*. 2018;8(1):15–8.
- Omohundro JM, Elliott JH. Cryotherapy of conjunctival papilloma. *Arch Ophthalmol*. 1970;84:609–10.
- Morgenstern KE, Givan J, Wiley LA. Long-term administration of topical interferon alfa-2beta in the treatment of conjunctival squamous papilloma. *Arch Ophthalmol*. 2003;121(7):1052–3.
- Falco LA, Gruosso PJ, Skolnick K, Bejar L. Carbon dioxide laser therapy of recurrent squamous papilloma of the conjunctiva. *Ophthalmic Surg*. 1982;13(11):916–8.
- Jean B, Thiel HJ, Stumper K. CO2 laser vaporization of papilloma of the conjunctiva and eyelids. *Fortschr Ophthalmol*. 1989;86:672–5.
- Yuen HK, Yeung EF, Chan NR, Chi SC, Lam DS. The use of postoperative topical mitomycin C in the treatment of recurrent conjunctival papilloma. *Cornea*. 2002;21(8):838–9.
- Chang SW, Huang ZL. Oral cimetidine adjuvant therapy for recalcitrant, diffuse conjunctival papillomatosis. *Cornea*. 2006;25(6):687–90.
- Slade CS, Katz NN, Whitmore PV, Bardenstein DS. Conjunctival and canalicular papillomas and ichthyosis vulgaris. *Ann Ophthalmol*. 1988;20(7):251–5.
- Schechter BA, Rand WJ, Velazquez GE, Williams WD, Starasoler L. Treatment of conjunctival papillomata with topical interferon Alfa-2b. *Am J Ophthalmol*. 2002;134(2):268–70.
- Keizer D, W R, Wolff-Rouendaal D. Topical a-interferon in Recurrent Conjunctival Papilloma. *Acta Ophthalmologica Scandinavica*. 2003;p. 193–196.
- Petrelli R, Cotlier E, Robins S, Stoessel K. Dinitrochlorobenzene immunotherapy of recurrent squamous papilloma of the conjunctiva. *Ophthalmology*. 1981;88(12):1221–5.
- Lassalle S, Maschi C, Caujolle JP, Giordanengo V, Hofman P. Inverted conjunctival papilloma: A certainly underestimated high-risk lesion for carcinomatous transformation-a case report. *Can J Ophthalmol*. 2017;52(1):30–1.
- Bredow L, Martin G, Reinhard T, Mittelviefhaus H, Auw-Haedrich C. Recurrent conjunctival papilloma progressing into squamous cell carcinoma with change of HPV-finding during the course. *Br J Ophthalmol*. 2009;93(11):1437–51.

Author biography

Yashi Bansal, Associate Professor

Seema Dutt Bandhu, Professor  <https://orcid.org/0000-0003-4564-6449>

Umesh Sharma, Senior Resident

Harkirat Kaur Sandhu, Intern

Samreen Kaur, Junior Resident

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