

## CASE REPORT

### AN UNUSUAL CASE OF BLOODY TEARS

**Sarah Awan, Hasan Sajid Kazmi, Abdul Aziz Awan**

Department of Ophthalmology, Ayub Medical College and Teaching Hospital, Abbottabad

Conjunctival bleeding is usually caused by non accidental or accidental conjunctival laceration, conjunctival tumors and nasolacrimal sac tumors. We report here a rare case of conjunctival bleeding which was self induced using cinnamon bark.

**Keywords:** Bloody Tears, Conjunctiva, Eye

#### INTRODUCTION

Conjunctiva is a transparent mucous membrane, which lines the inner surface of the eyelid (palpebral conjunctiva), and the anterior part of the sclera (bulbar conjunctiva). It develops from the ectoderm and is formed during the third month of intrauterine life. Like other mucous membranes, conjunctiva is composed of two layers. a: stratified columnar epithelium and b: lamina propria. The blood supply of the palpebral conjunctiva is from marginal and peripheral arcade. The bulbar and fornix conjunctiva is nourished by peripheral arcade<sup>1</sup>. Conjunctiva plays a vital role in normal ocular functions. Its main function is secretion of mucous and stability of tear film. It also plays a role in defense against exogenous infections.

There is relatively large amount of protein (1 – 2 gm/100ml) in tears. Proteins are 30% albumin, 40% globulin and 30% lysozyme. IgA is the main immunoglobulin of tears and is synthesized by subconjunctival plasma cells. Epithelial cells manufacture secretory IgA, complement, lysosome and other factors which cause bacteriolysis<sup>2</sup>.

Because of its exposed position, conjunctiva is the site of many degenerative changes. Inflammation may occur due to exogenous microorganism, chemical and mechanical foreign material<sup>3</sup>. Infection may extend from surrounding area or be blood borne. While conjunctivitis with mucopurulent or purulent discharge is common and universal, blood stained tears or bloody tears is extremely rare condition. It has been reported in conjunctival laceration, malignant melanoma of the conjunctiva and malignant tumors of the lacrimal sac<sup>4</sup>.

#### CASE REPORT

A 25 year old lady presented with a two week history of blood stained tears in the left eye. She had a similar episode a year ago which responded to topical eye drops given at a local hospital. These blood stained tears were intermittent. She had no past history of hospitalization or any other illness. There was no family history of any ocular disease. On examination her visual acuity was 6/6 unaided in

both eyes. Left conjunctiva was hyperemic with copious chocolate colored discharge. Palpebral conjunctiva, apart from hyperemia, showed no other lesion. Cornea was clear and anterior chamber showed no inflammatory activity. There was no preauricular lymphadenopathy and extraocular movements were normal. Regurgitation test was negative.

The patient was admitted for investigation and observation. Her hemoglobin, bleeding time and prothrombin time were within normal limits. She was negative for bleeding disorder workup.

She was noticed to have periodic conjunctival blood stained discharge which defied any clinical pattern. Charge nurse was asked to record the timing of bloody tears and keep close surveillance on the patient. On third day of admission, it was reported that the patient was using cinnamon bark covered with gauze piece, which she inserted in the upper fornix and caused self induced conjunctival discharge.

She was counseled about corneal damage and infection that may result due to bark and leave her with permanent visual loss. She was referred to Psychiatry department for further counseling.

#### DISCUSSION

Subconjunctival hemorrhage and haematoma is known to occur in many clinical conditions. It has been reported in acute Epstein Barr virus<sup>5</sup>, in non accidental trauma<sup>6</sup>, factor XIII Val34Leu polymorphism<sup>7</sup>, idiopathic thrombocytopenic purpura<sup>8</sup>, but there are rare cases of conjunctival bleeding causing bloody discharge. Malignant melanoma of the conjunctiva is an uncommon tumor. It presents as pigmented lesion on the surface of the conjunctiva with gradual increase in size and new blood vessels surrounding the lesion<sup>9</sup>.

Bloody tears of unknown cause have been reported in literature without ascertaining the cause<sup>10</sup>.

#### CONCLUSION

We report here a case of bloody tears which was self inflicted using cinnamon bark covered with gauze. In

our knowledge, no such case has been reported before. This is an unusual clinical entity and can be very perplexing for the clinician. A thorough examination and proper workup are necessary to rule out serious conditions, but may fail to determine a cause.



**Fig 1: Blood stained discharge observed from the left eye during admission.**

## REFERENCES

1. Snell RS, Lemp MA. Clinical anatomy of the eye. Blackwell Scientific Publications, Inc. Massachusetts. 1989.
2. Lemp MA, Wolfley DE. The Lacrimal Apparatus. In: Hart WM (Ed). Adlers Physiology of the Eye. Mosby Year-Book, Inc. St. Louis, Missouri. 1992: 18-28.
3. Kanski JJ. Clinical Ophthalmology. Butterworth-Heinemann. London. 2003.
4. Newell FW. Ophthalmology: Principles and Concepts. Mosby Year-Book, Inc. St. Louis, Missouri. 1992.



**Fig 2: Cinnamon bark used for producing the discharge.**



**Fig 3: Gauze stained with chocolate colored discharge.**

5. Kanafani ZA, Bashur Z, Kani SS. Acute Epstein-Barr virus infection causing bilateral conjunctival hemorrhages. South Med J 2005; 98(3):390-1.
6. Spitzer SG, Luomo J, Noel LP. Isolated subconjunctival hemorrhages in nonaccidental trauma. J AAPOS 2005; 9(1):53-6.
7. Parmeggiani F, Costagliola C, Incorvaia C. Prevalence of factor XIII Val34Leu polymorphism in patients affected by spontaneous subconjunctival hemorrhage. Am J Ophthalmol. 2004; 138(3): 481-4.
8. Sodhi PK, Jose R. Subconjunctival hemorrhage: the first presenting clinical feature of idiopathic thrombocytopenic purpura. Jpn J Ophthalmol; 47(3): 316-8.
9. Gonidi M, Athanassiadou P, Drazinos S, Petrakakou E, Kairis M, Zerva C. Primary malignant melanoma of the conjunctiva of the upper eyelid. A case report. Acta Cytol 2004;41(6): 1790-2.
10. Ho VH, Wilson MV, Linder JS, Fleming JC, Haik BG. Bloody tears of unknown cause: case series and review of the literature. Ophthal Plast Reconstr Surg. 2004; 20(6): 442-7.

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## Address for Correspondence

**Dr. Hasan Sajid Kazmi**, Department of Ophthalmology, Eye B Unit, Ayub Teaching Hospital Abbottabad.

Ph: 0992-384927.

Email: hsajid@yahoo.com.