

Hemolacria in severe Migraine – Case report

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Abstract

Bloody tears or hemolacria mostly occurs in bleeding disorders, infections, and malignant condition of the eyes and surrounding structure. It is very rare to have it in migraine headache. Hereby, we report a case of Hemolacria in a 47 years lady during acute attack of migraine.

Keywords: Bloody tears, Conjunctiva, Headache, Hemolacria, Migraine

Hemolacria (blood tears) is a rare and severe clinical condition which may occur due to accidental or non-accidental injury to conjunctiva lacrimal gland or sac. As conjunctiva is exposed surface of the eye, it suffers from many diseases, inflammation, and infection. But clinical condition known as bloody tears without trauma and infection is a rare condition.¹ Carotid artery and vertebral artery dissection is the cause of chronic migraine.¹ Moreover, it has been found that vertebral artery dissection is more common among younger patients especially female gender with chronic migraine.

Case Description

We report a case of a 48-year-old lady who presented with frequent episodes of bloody tears following an attack of severe headache. She was evaluated in ENT, Gynecology and Ophthalmology specialists to rule out possible associated pathology, and found to have no systemic organic

pathologies. All her basic blood investigation and coagulation profile were within normal limits. She underwent magnetic resonance image (MRI) of the brain to investigate for the headache and bloody tears, that was also non significant. Her thyroid function tests, chest X-ray and ultrasound of the abdomen and pelvis also showed no abnormality. The pain over one side of the head was episodic and excruciating type following which she started to have bleeding from ipsilateral eye. Headache and the eye bleeding subsided together spontaneously.



Figure 1: Bleeding from left eye during left sided severe headache

She was started with oral prophylactic and abortive therapy with Topiramate and Rizatriptan in the line of vascular headache. Medical management showed improvement in symptoms and no severe attack of migraine and hemolacria were observed after that.

Discussion

The spontaneous bleeding from eye is extremely rare condition. There could be associated factors like bacterial and viral infection, some cases have been reported in purulent conjunctivitis and acute infection with Epstein-Barr virus, in non-accidental trauma, genetic polymorphism of factor XIII Val34Leu and idiopathic thrombocytopenic purpura.^{1,2,3} There could be more associated pathologies like ocular and surrounding malignancies. There is no specific pharmacotherapy is available for idiopathic hemolacria, the mainstay treatment is the treating the underlying cause. Furthermore, the treatment should be preceded by psycho-education, stress regulating exercises, maintained regular follow-ups.^{4,6,8}

Conclusion

Hemolacria in migraine is very rare condition and it should be evaluated well to rule out associated pathologies. This case of vascular headache with hemolacria was managed successfully with administration of anti- migraine medications.

References:

1. Levine MR, Dinar Y, Davies R. Malignant melanoma of the lacrimal sac. *Ophthalmic Surgery, Lasers and Imaging Retina*. 1996 Apr 1;27(4):318-20.
2. Ullah A, Badshah M, Jamil U. An unusual case of bloody tears. *Annals of Indian Academy of Neurology*. 2015 Jul;18(3):351.
3. Yazici B, Ucan G, Adim SB. Cavernous hemangioma of the conjunctiva: case report. *Ophthalmic Plastic & Reconstructive Surgery*. 2011 Mar 1;27(2):e27-8.
4. Jha A. Idiopathic Hemolacria: a case report. *Journal of Psychiatrists' Association of Nepal*. 2020 Dec 31;9(2):85-7.
5. Ahluwalia BK, Khurana AK, Sood S. Bloody tears (haemolacria). *Indian Journal of Ophthalmology*. 1987 Jan 1;35(1):41.

6. Ghosh S, Tale S, Handa N, Bhalla A. Rare case of red tears: ocular vicarious menstruation. *BMJ Case Reports CP*. 2021 Mar 1;14(3):e237294.
7. Antunes AS, Peixe B, Guerreiro H. Hematidrosis, hemolacria, and gastrointestinal bleeding. *GE-Portuguese Journal of Gastroenterology*. 2017;24(6):301-4.
8. Rahman MS, Karim MR, Islam MM, Karim MR. Dissociative disorders with haemolacria: Series of case reports. *Journal of Bangladesh College of Physicians and Surgeons*. 2017 May 14;35(1):36-42.