

Crying out blood: haemolacria in a young girl

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DESCRIPTION

An 11-year-old girl was brought to our clinic by her mother with the history of blood tinged tears from both eyes for the past 1 week ([video 1](#)). She also presented the history of one episode of nasal bleeding in the past. When asked about her symptoms, she stated that the bouts were spontaneous, occurring two times per day lasting for periods of 2–3 min and not associated with any stress or cry. She was of premenarcheal age and did not have any menstrual history. There was no history of any systemic illness or medicine intake, and trauma in the past.

On general examination, she was of average build. Her vitals were within normal limits. There was no evidence of pallor or icterus.

On ocular examination, she had an unaided visual acuity of 20/20 in both eyes. On slit lamp examination, both anterior and posterior segments were found to be normal. Intraocular pressure was within normal range. Regurgitation test was negative; lacrimal gland and sac area were found to be normal.

The patient was kept under observation for 2 days and it was seen that every day, 2–3 episodes of blood tinged tearing was taking place ([videos 2 and 3](#)), each episode lasting for nearly 3 min.

Blood investigations were performed. Complete blood count, bleeding time, clotting time, prothrombin time, activated partial thromboplastin time, international normalized ratio, random blood sugar, liver and renal function tests were found to be within normal limits. In order to rule out any lacrimal gland or drainage pathologies, contrast-enhanced CT of orbit and paranasal sinuses was done, which came out to be normal. Cytological examination of tear film showed only red blood cells, with no other abnormal cells.

After performing all the necessary systemic investigations and evaluating for other causes of haemolacria, which came out to be negative, idiopathic cause was attributed to the condition. Her family



Video 2 First episode of spontaneous haemolacria when under observation

was counselled properly regarding the disease and she has been on follow-up.

Haemolacria is a condition characterised by the presence of blood in tears. The condition is also known as dacryohemorrhage, haemato-dacryorrhage and sanguineous lacrimation.¹ It is one of the most alarming and rare conditions, which has been attributed to several etiologies. Due to its low incidence and limited literature, the prevalence and predilection of haemolacria for a specific gender, race or age remain obscure. Haemolacria was first mentioned in the scientific medical book, *Aëtius of Amida*, in the sixth century. A millennium later, in the 16th century, there was a nun who had auricular and ocular haemorrhages every month instead of menstruating, cited by Brassavola. Later in 1581, a 16-year-old girl was cited by Dondonaeus who had drops of bloody tears instead of menstrual discharge.¹ Haemolacria is a benign and self-limiting condition. However, it has an association with severe systemic diseases



Video 3 Second episode of spontaneous haemolacria when under observation



Video 1 Video at presentation

Patient's perspective

I am scared about my daughter's health. The blood coming from her eyes is horrifying. I hope there will not be any similar episodes in future.



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Learning points

- ▶ Haemolacria can be seen in many systemic conditions and needs thorough evaluation to rule out any underlying pathology.
- ▶ Idiopathic essential haemolacria is diagnosed when no cause is found.
- ▶ Idiopathic essential haemolacria has a benign course and patients need to be counselled properly and followed up regularly.

like hereditary haemorrhagic telangiectasia or Osler-Weber-Rendu disease, Henoch-Schönlein purpura, Gardner-Diamond syndrome and bleeding disorders like haemophilia, characterised by deficiency of clotting factors like VIII and IX. Vascular causes like high blood pressure is one of the common causes of epistaxis. Epistaxis with retrograde flow of blood through puncta lacrimalia has been reported as a cause of haemolacria.² Ocular conditions like conjunctival varicose vessels, inflammatory conditions like blepharitis, conjunctivitis, dacryoadenitis, inflammatory papillomas of conjunctival sac and episcleritis with bloody tears have been reported. Neoplasms like conjunctival hemangioma, meningioma of lacrimal sac and lymphangioma in upper cul-de-sac are also important causes of haemolacria.¹ In haemolacria, sources of blood can be tear glands, the walls of lacrimal basin or puncta lacrimalia. Thorough evaluation should be done in patients of haemolacria before labelling it

as idiopathic. Idiopathic haemolacria is basically a diagnosis of exclusion.³ According to the literature, other causes of haemolacria are trauma, vicarious menstruation, stress, anxiety, physical exertion, including stooping, bending and coughing. Drugs like silver nitrate and acetylcholine have been reported to cause haemolacria. Close observation and regular follow-up of a patient is helpful in diagnosing a psychiatric condition known as Munchausen syndrome, a rare cause of haemolacria.⁴

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