

# Bilateral Idiopathic Haemolacria in a 14 Years Old Girl

## Ondört Yaşında Bir Kızda Görülen Bilateral İdiopatik Hemolakriya

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### ABSTRACT

Haemolacria or bloody tears is a rare clinical condition caused by various ocular and systemic conditions, as well as pharmacologic and idiopathic etiologies. We report a case of patient admitted with recurrent bilateral haemolacria. A 14-year-old girl was admitted to our clinic with complaints of bloody tears for 8 months in both eyes. The bloody tears were not associated with her menstrual cycle. Blood stained discharge from punctum was not observed during compression of either nasolacrimal duct. Nasolacrimal duct dacryocystography and gradient-echo magnetic resonance imaging (MRI) studies were normal. Intranasal endoscopic evaluation was normal. Further evaluations for underlying causes were unremarkable. There was no abnormality on the ophthalmological and radiological investigations. The patient was diagnosed with idiopathic haemolacria. Patients admitted with complaints of bloody tears should be evaluated with a detailed history focusing on etiologic factors, ocular examination, and nasal and paranasal examination.

**Key Words:** Haemolacria, bloody tears.

### ÖZ

Hemolakriya veya kanlı gözyaşları, çeşitli göz ve sistemik koşullar yanı sıra farmakolojik ve idiyopatik nedenlere bağlı nadir bir klinik durumdur. Biz tekrarlayan bilateral haemolacria ile başvuran hastayı rapor ettik. 14 yaşındaki bir kız, her iki gözünde 8 ay kanlı gözyaşları şikayetleri ile kliniğimize başvurdu. Kanlı gözyaşları adet döngüsü ile ilişkili değildi. nazolakrimal kanala bası esnasında punktumdan kan lekeli deşarj gözlenmedi. Nazolakrimal kanal dakriyosistografi ve gradient-eko manyetik rezonans görüntüleme (MRG) çalışmaları normaldi. Altta yatan nedenler için yapılan daha fazla değerlendirmelerde bir özellik yoktu. Oftalmolojik ve radyolojik incelemelerde hiçbir anormallik yoktu. Kanlı gözyaşları şikayeti ile başvuran hastalar etyolojik faktörlere odaklanarak, ayrıntılı öykü, göz, nazal ve paranasal muayene ile değerlendirilmelidir.

**Anahtar Kelimeler:** Hemolacria, kanlı gözyaşı.

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## INTRODUCTION

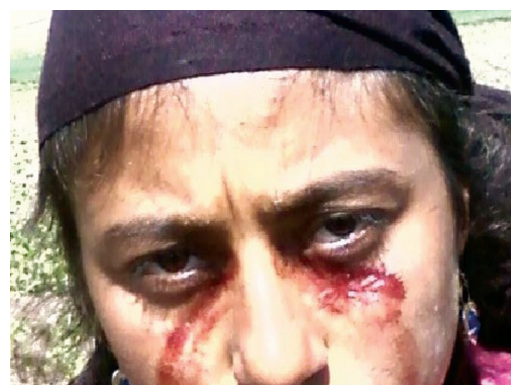
Haemolacria is a very rare clinical condition. In the literature, it is also known as “bloody tears”. Several ocular and systemic diseases, as well as pharmacological and idiopathic causes, may lead to haemolacria.

In the literature, lacrimal sac infection, lacrimal sac tumors, bacterial conjunctivitis, conjunctival capillary hemangioma, conjunctival telangiectasia, nose and paranasal sinus tumors, hereditary hemorrhagic telangiectasia, Henoch-Schönlein purpura, retrograde nosebleeds and nasolacrimal endometriosis have been reported as causes of haemolacria.<sup>1-3</sup> Additionally, idiopathic haemolacria has been reported.<sup>2,4,5</sup>

We aimed to represent how to approach a patient presents with haemolacria complaint in this study considering the literature.

## CASE REPORT

A 14-year-old girl was admitted to our clinic with complaints of bloody tears for 8 months in both eyes. She reported that at age of 12.5 her menarche started and menstrual cycle was normal. Bloody tears were not associated with menstrual cycle. There was no evidence in her medical history to suggest coagulopathy, bleeding diathesis or other hematological abnormalities. No trauma was described in medical history. There was no significant family history of ocular or systemic disease. During the eye examination, visual acuity was 20/20 in both eyes. On anterior segment examination, pupils were equal and reactive to light, intraocular pressure was normal and fundus examination was normal. Conjunctiva, fornix, and puncta of both eyelids were normal. No abnormalities such as foreign body, vascular lesion or lacerations were found. Lacrimal glands were not enlarged or sensitive, and compression did not reveal any discharge. Blood stained discharge from punctum was not observed during nasolacrimal duct compression. Nasolacrimal passages were not blocked. The dacryocystography and gradient-echo MRI studies of the nasolacrimal duct were normal. The ear-nose-throat (ENT) clinic performed rhinoscopy and endoscopic examination. They noted left deviation of the nasal septum. Other ENT examinations were normal. Laboratory analysis including complete blood count (hemoglobin and platelet count) and coagulation profile (PTT, aPTT, INR, fibrinogen) was normal. Erythrocyte sedimentation rate was 10 mm/h. P-ANCA, c-ANCA, ANA and anti-dsDNA were negative. Arterial blood pressure was 110/70. Paranasal sinus computed tomography and MRI revealed no facial inflammatory pathology. No pathology was found on the examination conducted by the department of pediatrics. In the assessment of child psychiatrists; it was noted that the patient's examination was natural and haemolacria complaint may be true.



**Figure:** Bilateral idiopathic haemolacria in a 14 years girl.

The patient was admitted to the ENT service. Haemolacria was never observed during the one-week hospital stay. The patient brought a photograph of her haemolacria to the one-month follow-up appointment. At the patient's one-year follow-up, she indicated that haemolacria appeared from time to time. In every visit made, eye, ENT and pediatrics departments' examinations were normal. She was given a diagnosis of idiopathic haemolacria, and we continue to follow her condition.

The patient provided written informed consent for publication of these photographs

## DISCUSSION

Haemolacria can be unnerving to patients and perplexing to physicians when no etiology is discovered. The idiopathic haemolacria can be diagnosed only after ruling out ocular, systemic, pharmacological and psychological causes.

In a case report by Pizzamiglio-Martin et al,<sup>6</sup> a 45-year-old patient with haemolacria was diagnosed with hereditary hemorrhagic telangiectasia after upper and lower subtarsal telangiectasia was observed on eye slit-lamp examination. Other etiologies of haemolacria include conjunctival capillary hemangioma and bacterial.<sup>6</sup> In our case, ophthalmic examination of the bilateral anterior segment found normal fundi and vision. No vascular pathology was found on inner surface of the bulbar conjunctiva and palpebral conjunctiva.

Haemolacria may also occur in patients with the lacrimal sac tumors, lacrimal sac infections, nasal and paranasal sinus tumors, and retrograde epistaxis.<sup>2</sup> After nasolacrimal lavage, our patient's nasolacrimal duct was clear. Pathology was not detected on radiological images.

A study done by Mukkamala et al.,<sup>1</sup> reported that haemolacria may be the evidence of scleral buckle infections.<sup>1</sup> Our patient had no ocular surgery history and normal examination findings.

Türkçüoğlu et al.,<sup>3</sup> presented a case of a 13 year-old girl with haemolacria. The patient had bleeding of left eye lower punctum simultaneous with cyclic menstrual bleeding. She had no other ocular pathology symptoms. Nasolacrimal duct gradient-echo MRI was performed during the patient's menstrual cycle, and hypointense areas were observed with acute bleeding. Biopsy was not performed. They described this case as "default nasolacrimal endometriosis". In our patient, bilateral bloody tears were intermittent, irregular, and not associated with menstruation.

Uncontrolled hypertension, chronic renal failure and aggressive anticoagulant therapy may be a systemic cause of haemolacria.<sup>7</sup> Arterial blood pressure and biochemical tests in our patient were normal. She had no history of drug use.

Ho et al.,<sup>2</sup> reported 4 cases of idiopathic haemolacria after normal conjunctival biopsy, imaging studies of nasolacrimal system irrigation, blood and coagulation profile, and serum hormone levels. Ozcan et al.,<sup>4</sup> presented a patient with haemolacria accompanied by epistaxis of unknown etiology. Beyazyildiz et al.,<sup>5</sup> reported a case of idiopathic bilateral bloody tears. Our patient's physical examination, laboratory investigations and imaging did not reveal any pathology. Therefore, our patient was diagnosed with idiopathic haemolacria.

In conclusion, systemic evaluation of etiological factors and detailed ocular and ENT examinations must be performed on patients admitted with a complaint of bloody tears. If the etiology of haemolacria cannot be identified by physical examination and tests, patients may be diagnosed with idiopathic haemolacria and should be monitored at regular intervals.

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