

## OCULAR VICARIOUS MENSTRUATION: A REVIEW

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### ABSTRACT

Vicarious menstruation represents cyclical bleeding in extragenital organs during a normal menstrual cycle. We present an unusual case of ocular vicarious menstruation (bloody tears) in a 25-year-old girl. The indications and treatment of this rare disorder are discussed.

**KEYWORDS:** Bloody tears, Vicarious menstruation, Rare disorder.

### INTRODUCTION

Haemolacria is a rare disorder that requires extensive testing to determine the source of your bloody tears. In some cases, a multidisciplinary discussion may be necessary to get a definitive conclusion. Trauma, orbital varix, bleeding disorders, infections, ocular endometriosis, drugs, and lastly psychological issues should all be considered in the differential diagnosis. A complete clinical history, examination, and investigations should all be carried out in order to arrive at an appropriate diagnosis. Cycled bleeding in extragenital organs throughout the menstrual cycle is known as vicarious menstruation.<sup>[1]</sup> In this article, we looked at a case of a young girl who suffered from 'bloody tears' on a regular basis throughout her period. This is a one-of-a-kind clinical case. There hasn't been another example like this in the literature recently. To further understand the aetiology and therapy of this disease, more research is needed.

### CASE REPORT

When a lady complained about 'bloody tears,' doctors were taken aback. After experiencing bloody tears, the 25-year-old lady went to the emergency department at a hospital in Chandigarh. The woman was not in any pain or discomfort as a result of the blood tears. She informed the doctors that she had gone through the same thing a month before they came to see her. Various ophthalmological and radiological examinations were performed on her. Her reports, on the other hand, were all normal. The physicians couldn't detect any additional sources of bleeding, and she didn't have a history of ocular haemorrhage or any previous eye problems (Figure 1). After further investigation, the physicians discovered that the woman was on her periods both times

she sobbed bloody tears. Ocular vicarious menstruation was subsequently diagnosed.



Figure 1: (bloody tears).

According to Me dizzy, the unusual illness is characterised as "cyclical bleeding occurring during menstruation from extragenital organs," with the nose being the most prevalent site of bleeding. However, bleeding from the lips, eyes, lungs, and stomach is possible.

Another study revealed an instance of ocular vicarious menstruation (bloody tears) in a 17-year-old girl.<sup>[2]</sup> A 30-year-old lady had an 8-year history of unilateral recurring subconjunctival haemorrhaging that started on the first day of her menstrual cycle every month and resolved after 7 to 10 days. Subconjunctival haemorrhages (trauma) were found to be the cause of the bleeding in this case. Surgery was performed to treat it when hormone treatment failed.<sup>[3]</sup>

Cause of ocular vicarious menstruation

Ocular vicarious menstruation is caused by a variety of ocular and systemic illnesses, which are ailments or traumas (damage) connected with the eyes (ocular).<sup>[4]</sup> A

systemic sickness, on the other hand, affects the entire body or many organs and tissues (such as diabetes). According to the paper, hormonal changes during menstruation modify 'vascular permeability in these organs (eyes) and induce bleeding.' The anatomical reason of the blood discharge is currently being investigated by doctors. According to some specialists, endometriosis, or the presence of endometrial tissue in extragenital organs, might be a factor in the development of vicarious menstruation. Oestrogen and progesterone can cause hyperaemia, congestion, and subsequent bleeding from extrauterine tissue by increasing capillary permeability.<sup>[3]</sup>

### TREATMENT

Oral contraceptives containing a mix of oestrogen and progesterone were recommended to the 25-year-old lady. The patient did not have any blood flow from her eyes during a three-month follow-up.

### DISCUSSION

Bleeding tears are a concerning clinical condition. It might come from the conjunctiva, the lacrimal gland, or the vascular structures of the eye. It might be uniocular or biocular in nature. Systemic causes of biocular haemolacria should always be investigated. It has been observed in a variety of clinical settings. The most prevalent of them is ocular trauma.<sup>[5]</sup>

Purulent conjunctivitis, acute Epstein-Barr virus infection<sup>[6]</sup>, idiopathic thrombocytopenic purpura<sup>[7]</sup>, malignant melanoma of the conjunctiva, orbital varix, large papillary conjunctivitis Osler-Weber-Rendu syndrome (hereditary haemorrhagic telangiectasis), retrograde epistaxis, certain topical medications, blood coagulation problems.<sup>[8]</sup> Another rare cause of bilateral haemolacria is vicarious menstrual bleeding. Although the specific pathophysiology of vicarious menstruation is unknown, it is thought to be caused by the vasculature's reaction to hormones in the presence or absence of endometrial tissue at extrauterine locations. Oestrogen and progesterone can cause hyperaemia, congestion, and subsequent bleeding from extrauterine tissue by increasing capillary permeability. Hormonally sensitive ocular and orbital tissues have been discovered. Conjunctival epithelium shows cyclical alteration during menstruation and menopause, according to recent research. Variations in corneal thickness and curvature have also been seen throughout various stages of the menstrual cycle.<sup>[9]</sup> The reason of ocular vicarious menstruation is nervous system instability, not hormonal imbalances. To determine if a patient has ocular vicarious menstruation, a thorough examination is required to rule out other possible reasons. When a diagnosis is made, hormone treatment is used to treat it since it causes ovulatory suppression. If possible, surgical excision of aberrant endometrial tissue is used to treat bleeding caused by ocular or orbital endometriosis.<sup>[10]</sup> The hormone treatment had a positive

effect on our patient as well. During the three-month follow-up period, no more bleeding episodes occurred.

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