A Case of Adult Ocular Leech Infestation

Alireza Khodabande, MD

Abstract

Purpose: To report a case of adult ocular leech infestation

Case report: A 67-year-old male presented to the emergency department of Farabi Eye Hospital with the complaint of bloody tear. Slitlamp biomicroscopy of left eye revealed bloody lashes, bloody tear and a large black green foreign body attached to the inferotemporal bulbar conjunctiva. One cc of lidocaine 2% was injected directly to the body of leech. 10 minutes after injection, removal with forceps was retried.

Conclusion: Ocular leech infestation must be considered as a differential diagnosis of bloody tear and hemorrhagic conjunctivitis. Removal of leech after direct injection of lidocaine to its body seems to be a safe method.

Keywords: Leech, Ocular Infestation, Hemorrhagic Conjunctivitis

Introduction

Leeches are annelids comprising the subclass Hirudinea. There are fresh water, terrestrial, and marine leeches. Haemophagic leeches attach to their hosts and detach from the skin once they have finished their meal. They connect to a host by an anterior (oral) sucker, which also release an anesthetic to prevent the host from sensing the leech. They secrete an anti-clotting enzyme to prevent the coagulation of the host's blood.

Leeches can adhere to mucosal surfaces such as eyes\(^1\,\,^2\) and nasal fossa.\(^3\)

Case report

A 67-year-old male presented to the emergency department of Farabi Eye Hospital, Tehran, Iran in April 2007 with the complaint of bloody tear, foreign body sensation and left ocular pain. He was a farmer in a rural society. His symptoms began 20 hours before admission immediately after washing his face with stream water. There was no history of eye trauma or a bleeding tendency disorder.

Visual acuity (VA) was 20/30 and 20/40. Right eye examination was unremarkable except for moderate nuclear sclerosis. Slitlamp biomicroscopy of left eye revealed bloody lashes, bloody tear and a large black green foreign body attached to the inferotemporal bulbar conjunctiva (Figure 1). No sign of intraocular inflammation or hemorrhage was noted. Indirect ophtalmoscopy (after mydriatic instillation) was unremarkable. Manipulation of foreign body with cotton applicator revealed that it is an alive leech sucked into the bulbar conjunctiva. Removal of leech with forceps was tried but was unsuccessful due to firm adhesion of anterior suckers to the conjunctiva.

1. Assistant Professor of Ophthalmology, Eye Research Center, Farabi Eye Hospital, Tehran University of Medical Sciences

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Correspondence to: Alireza Khodabande, MD
Eye Research Center, Farabi Eye Hospital, Tehran, Iran, Tel:+98 21 55414941-6, Email: alireza_khodabande@yahoo.com
Discussion

Alcelik et al reported a case of child ocular leech infestation and concluded that ocular leech infestation should be regarded as a differential diagnosis of ocular trauma with iris prolapse. Based on our case, ocular leech infestation must be considered as a differential diagnosis of bloody tear and hemorrhagic conjunctivitis.

Lewis G et al reported a case of adult ocular leech infestation during expedition to the jungle. The leech was removed mechanically after direct application of cooking salt to it.

There are different tested methods for leech removal from the eye. Some of them are applications of eucalyptus oil, lemon juice, flames from lighters, tropical strength insect repellent (50–100% DEET), tobacco, cigarette heat or salt. There are some dangers of the use of these methods close to the eye.

Removal of leech after direct injection of lidocaine to its body seems to be a safe method.

Conclusion

The author concludes that ocular leech infestation, although rare, should be considered as a differential diagnosis of conjunctival foreign body with minimal probability of profuse bleeding. Contact with water of stream or lake must be asked. Removal of leech after direct injection of lidocaine into the body of leech is recommended.

References