Oropharyngeal Leech Infestation and Therapeutic Options

Orofarengeal Sülfük İnfestasyonu ve Tedavi Seçenekleri

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ABSTRACT
This is a case report about a rare oropharyngeal foreign body causing oropharyngeal symptoms such as sore throat, dysphagia and hemoptysis. We reported a 7 year-old boy who had ingested a leech from a bottle which had been filled with water and it had attached to the palate within 4 days. The leech was identified as approximately 3 cm in length. Leech was removed under premedication by using monopolar cauterization. Although child infestation by a leech in the upper respiratory tract is very rare, it should be investigated when contaminated liquids are ingested. Electro cauterization should be borne in mind as a therapeutic option in the treatment of leech infestations in the upper respiratory tract under pre-medication in pediatric patients. (Turkiye Parazitol Derg 2010; 34: 200-2)

Key Words: Leech, oropharynx, treatment

INTRODUCTION
Human infestation of a leech, especially in urban areas, is very rare. It usually occurs in individuals who swim in streams or drink infested water (1). After the contaminated water is drunk, the leech may adhere to anywhere along the upper aerodigestive tract. Possible areas are the nasal cavity, oropharynx and hypopharynx, larynx, trachea, and esophagus (2-4). When adhere dto the mucous membrane, leeches ingest blood averaging 890% of their weight. For this reason, aquatic leeches may be dangerous, and also they can cause severe anemia which may require blood transfusion (2). Anemia and respiratory obstruction, especially in children, may endanger lives, even possibly causing fatalities. We have reported a child in an urban area who ingested a leech from a bottle that had been filled with water, whichattached to the palate within 4 days. The current literature is reviewed and the therapeutic options are discussed.

CASE REPORT
A 7 year-old boy presented at our clinic who had a 4 day history of oropharyngeal symptoms such as sore throat,
The medical leech injects hirudin (thrombin inhibitor), and therostatin (factor Xa inhibitor) have been identified (5). The medical leech injects anticoagulant and a histamine-like vasodilator, they are a treatment using medical leeches. Because of their saliva containing anticoagulant and a histamine-like vasodilator, they are useful for providing critical venous outflow for compromised tissue replants and transfers that might otherwise be unsalvageable (7). The existence of skin visceral connections with the definite organs is well known. Biologically active substances act on organs during the blood-sucking process of medicinal leeches through veins. It promotes the improvement of blood circulation in the organ, renders a thrombolytic, anti-inflammatory, immune stimulating action, increases nutrition of tissues, and strengthens tissues immunity. The removal of a leech in the upper aero-digestive tract should be performed with caution to prevent prolonged bleeding. It adheres firmly to the mucosa, with either insertion of a proboscis or a triple-jawed mouth.

When lodged in the oropharynx, the leech is able to simulate the symptoms of angio-edema. Signs of mechanical obstruction, including unilateral nasal obstruction, dysphagia, dysphonia, or dyspnea can progress in time, since the leech will increase its size during the period of feeding. In this case, the patient had dysphagia.

For many years, leeches have been used in modern medicine to encourage the blood flow to skin and muscle flaps, improving blood circulation and helping quicker healing in Turkey. Also, in our case, the patient's mother had had breast reconstructive surgery with a transverse rectus abdominis myocutaneous (TRAM) flap and leeches were used after surgery to improve its blood flow, and the child was infested by a leech from a bottle which had been filled with water without his parents' knowledge. Although oropharyngeal leech infestation is not common in urban areas, this case of oropharyngeal leech infestation had occurred in an urban environment because of the patient's mother's surgery in which leeches had been used. Also, Kuehnemund et al. (8) reported that human infestation of a leech, especially in urban areas, is very rare.

In therapy, removal of a leech requires special care and utmost gentleness because it attaches strongly with its suckers. This procedure can be performed under general or topical/local anesthesia. Different methods of detaching a leech from the mucosa other than mechanical have been proposed, such as injection of local anesthetics or superficial application of toxic agents (9). In Kuehnemund’s (8) study, the leech was removed easily with forceps without complications. If it is in the nares or upper pharynx, it can be paralysed with cocaine and extracted directly (10). As an alternative to cocaine, as in the Bilgen et al. (3) case study, topical anesthetic agents, such as Lidocaine, are effective in paralyzing leeches. If it is in the larynx, hypopharynx or lower pharynx, direct laryngoscopy is needed under general anesthesia, both for diagnosis and removal of the leech (3). Also, our patient’s leech was in the oropharynx so, following pre-medication, it was removed quickly via electro cauterization.

CONCLUSION

In developing countries, the possibility of Hirudinea should not be overlooked and leech infestations have to be considered in the differential diagnosis of severe anemia in children. Electro cauterization should be borne in mind as a therapeutic option in the treatment of leech infestations in the upper respiratory tract under pre-medication in pediatric patients.

Declarations

There was no source of funding for our research. There was no competing interest. Ethical approval was given from the committee and the number of this document was 2007/4798.

Conflict of Interest

No conflict of interest was declared by the authors.
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