thorax. Whenever such a mass is encountered, a workup must be conducted that includes imaging and possibly biopsy. A formal surgical plan should then be developed if the mass is deemed resectable.

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Surprising Cause of Respiratory Distress in Child: Laryngeal Leech

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Abstract: Foreign body aspiration is a major problem that can cause respiratory distress and oral bleeding in a child. Leeches are rarely seen foreign bodies in the larynx. Generally, they live in springwater and can be aspirated by drinking. They can cause respiratory distress, oral bleeding, and anemia, if diagnostic process is delayed. When leeches are detected, urgent diagnosis and treatment are necessary. In this case, we present a 7-year-old child examined in the emergency service with these symptoms. A dark green living body in the larynx was detected and removed urgently under sedo-analgesia. The living body was seen as a leech that is 5 cm in length.

Key Words: Leech, larynx

Leeches are segmented worms that live in freshwater, natural springwater, and marine environments. They have parasitic behavior and mostly nourish by blood sucking.[1] Leeches use anterior suckers to connect to hosts for feeding. They can secrete some anesthetics so as not to disturb the hosts and can secrete an anticoagulant enzyme named *hirudin*.[2] They can grow up to half of a meter.[3] In Turkey, springwater use is not so uncommon. Leeches usually live in the reservoir of fountain and can be drunk when this water is used. In this case, we present a 7-year-old girl who came to the emergency service with respiratory distress and oral bleeding. With flexible fiberoptic laryngoscopy, a leech was seen on the glottis, which joined to the left aryepiglottic fold and caused respiratory distress.

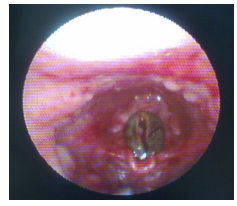

FIGURE 1. Dark green living body on the glottis.

CLINICAL REPORT

A 7-year-old girl came to the emergency service with complaints of respiratory distress and oral bleeding. Flexible fiberoptic laryngoscopy revealed a dark green foreign living body that was seen on the left aryepiglottic fold, which lied down on the glottis (Fig. 1). Direct laryngoscopy was performed under anesthesia with ketamine and fentanyl to avoid the risk of aspiration of the foreign living body due to laryngeal reflex. A 5-cm long leech was seen and removed from the larynx (Fig. 2). The bleeding seen on the left aryepiglottic fold where the leech had joined was taken under control by adrenaline-soaked cotton. After the operation ended, cold stream was performed on the patient. On the first day of the operation, the patient was discharged from the hospital without any discomfort and complaint.

DISCUSSION

Respiratory distress and oral bleeding are scary symptoms in children. Urgent diagnosis and treatment are essential. Because foreign body aspiration is an important cause of these symptoms, children should be examined carefully for this possibility.[4] Leeches are rarely reported to be a cause for respiratory distress and oral bleeding. In Turkey, springwater use is not uncommon, and leeches could be aspirated by this way and could locate anywhere, such as in the nasopharynx, pharynx, and larynx, in children.[5] When leeches infest to a human, they connect to their host by their anterior suckers for feeding and secrete hirudin,[2] which is an anticoagulant enzyme. After the removal of the leech, bleeding may continue because of this anticoagulant

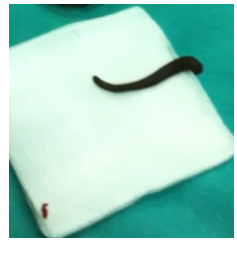

FIGURE 2. Leech removed from the glottis.

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enzyme. Bleeding time will vary, with location, from a few hours to 2 days.[6] The delay in diagnostic approach may lead to anemia because of symptomatic or asymptomatic bleeding[7] and could be fatal.[8] Applying pressure can reduce bleeding, although blood loss from a single bite is not so dangerous. In this case, we used adrenaline-soaked cotton to stop the bleeding on the left aryepiglottic fold.

Removal of the leech from the larynx is important because the leech attaches to the tissue strongly by its anterior sucker and applying force strongly may cause serious damage on the tissue. So, removal must be done so gentle so as not to damage the tissue.

In our case, the major problem was the respiratory distress caused by the leech's position. So, urgently, the patient was examined by the flexible fiberoptic laryngoscope to prevent laryngeal spasm, and the leech was seen on the glottis. Then, the patient was operated on under anesthesia, and the leech was pulled out. Laboratory analysis of the patient revealed no abnormality with completely normal hemogram. Because of the localization of the leech, symptoms had aroused quickly, and the exposure time of the leech remained too short to cause anemia.

The authors usually suggest using general anesthesia to perform this kind of operation.[9] Because the leech was alive and mobile, to avoid dislodging it to the respiratory airways during intubation process, we agreed to perform this procedure with sedo-anesthesia.

As a conclusion, respiratory distress and oral bleeding are dangerous and life-threatening symptoms in children, and although rarely seen, laryngeal leech possibility should be kept in mind especially in these patients who were referred from rural areas.

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