

## A FOREIGN BODY IN THE LARYNX OF A ONE-YEAR-OLD CHILD: CLINICAL CASE

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**ABSTRACT** The author report a clinical case of a one-year-old-child treatment with a foreign body (diode lamp) in the larynx. Despite the large size of the aspirated object and its location at the level of the glottis, the child was breathing independently. The foreign body was removed through natural airways with direct laryngoscopy, avoiding complications. This case emphasizes necessity of properly performed objective examination in children of younger age in order to reveal foreign bodies of respiratory ways.

**Keywords:** foreign body, larynx, dysphonia, direct laryngoscopy

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Foreign bodies in the respiratory tract are an extremely dangerous and constitute a significant part among emergency interventions in otorhinolaryngological practice.

The larynx is the most rare location of foreign bodies with severe severe clinical symptoms, depending on the shape and size of the body and its position. The respiratory stenosis of varying degree develops depending on obstruction of the glottis by a foreign body and the rate of edema development. There is an obsessive pertussis-like cough attack. The persistent hoarseness up to aphonia indicates the location of a foreign body in the larynx. The slight hoarseness or a rough voice can develop as a result of the vocal folds trauma when a foreign body passes through the larynx. Pointed foreign bodies may cause retrosternal pain, which is worsened with cough and movement, and sputum is coughed up with admixture of blood. Foreign bodies may fix in the subglottic region and stay in the larynx for a long time. In this case, the foreign body must be differentiated from recurrent respiratory papillomatosis and other neoplasms, acute stenosing laryngotracheobronchitis and post-intubation granuloma [1-8].

We report the case of a foreign body in the larynx on a one-year-old child.

A child G., 12 months, from Odintsovo district, Moscow region, stayed in the ENT Clinic MRRCI n.a. M.F. Vladimirovsky from June 5, 2017 until June 10, 2017 with the diagnosis of a foreign body of the larynx (a diode lamp). I was learnt from the anamnesis (according to his mother) that on June 5, 2017 the child suddenly coughed playing with a toy, there was a short-term interruption of breathing and aphonia. The child was taken to the ENT Clinic of MRRCI n.a. M.F. Vladimirovsky via reanimobile.

Upon admission: significant hoarseness, intermittent barking cough, noisy breathing. Skin covers and visible mucous membranes were pale, perioral cyanosis increased with exercise. Mixed stridor, which increased with crying, anxiety. Cardiac auscultation: clear, rhythmic heart sounds. Blood pressure 100/60 mm Hg, heart rate 120 beats per min. Lungs auscultation: puerile breathing, heard throughout all lung fields. Respiratory rate 36 breaths per min. The abdomen was soft and painless when palpated.

The X-rays of the neck in the sagittal and frontal plane shows a shadow of a V-shaped foreign body of metallic density, pointed downward at the level of C2-C4 in the projection of the larynx. (Fig. 1)

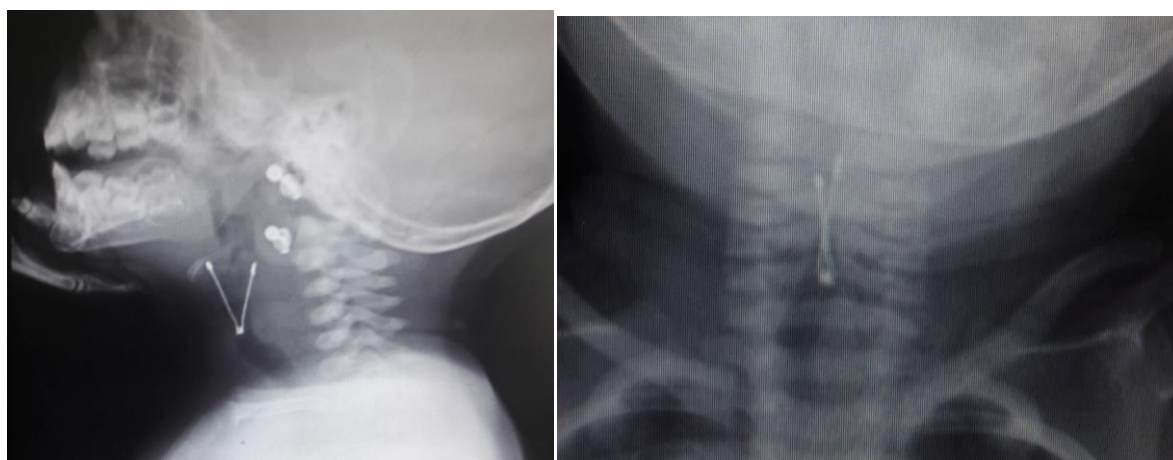


Fig. 1. The X-ray image of the neck: a — sagittal plane; b — frontal plane. There is a shadow of a V-shaped foreign body of metallic density, pointed downward at the level of C2-C4 in the projection of the larynx

Taking into account complaints, anamnesis, objective examination and X-ray images, the child was taken to the operating room. The direct laryngoscopy was performed during apnea after mask hyperventilation for 3-5 min under conditions of intravenous total anesthesia with myoplagia. The foreign body was removed from the larynx, which turned out to be a diode lamp of about 2.0 cm in length (Fig. 2). After the removal, nasal intubation was performed and the child was transferred to the intensive care unit. The next day after the operation the tube was removed, and the day after that the child was transferred to the ENT department. In the postoperative period, the boy received Sulperazone, Prednisolone, antihistamines, Smecta, Linex, inhalation with Hydrocortisone.



Fig. 2. The diode lamp of about 2.0 cm in length, removed from the larynx of a 12-month-old baby G.

On June 10, 2017, the child's condition was satisfactory, the body temperature was within the normal range, breathing was easy at rest and under exercises, but there was still slight hoarseness. The check-up fibrolaryngoscopy showed that mucous membrane of the larynx was slightly hyperemic, the vocal cords were of normal color.

The check examination a month later in the ENT department of MRRCI n.a. M.F. Vladimirovsky: clear voice, pink laryngeal mucous membrane, gray vocal cords, symmetrically moving.

The special thing about the presented case is the rarity of an unusual foreign body of sufficiently large sizes such as a diode lamp found in the larynx of a one-year-old child. Despite the large size of the aspirated object and its location at the level of the glottis, the child breathed through the natural airways. The foreign body was removed through natural pathways with direct laryngoscopy, avoiding complications.

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