

Living Foreign Body in the Larynx: A Rare Case Report

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ABSTRACT

Foreign body aspiration (FBA) is a common incidence in young children. While living FB like maggots have been reported very frequently, Leeches are rarely reported as FBA at any age. In this case we report a 55-year-old female from rural area presented with hoarseness, dyspnoea and cough since one month, upon Indirect laryngoscopy a blackish aneurysmal like FB in the larynx was seen. A neck computed tomography (CT) demonstrated a polypoidal soft tissue like shadow with changing positions in subsequent axial cuts.

Finally, direct laryngoscopy was performed under local anaesthesia in operation theatre and a 9 cm leech was found in the larynx overlying sub glottis and glottis area which was removed immediately with the Luc's forceps.

Keywords: Living foreign body, Larynx, Foreign body aspiration.

INTRODUCTION

Living type of foreign body are rare in the larynx as humans have very strong cough reflex and if at all, presents acutely because of the difficulty in breathing or respiratory distress or stridor. Most of the foreign body in the larynx are non-living (food particle,

bone, denture, coin etc). Living type of foreign body are usually seen in neglected tracheostomised patients or psychiatric patients. The main symptoms include haemoptysis, snoring, dyspnoea, cough, chronic foreign body sensation in throat. Although there are many reported cases of living foreign body in the nasal cavity, there are very few cases reported till now of living foreign body in the larynx.

We here in present a case report of 55 year old female with leech infestation of the larynx.

CASE REPORT

55-year female was referred from nearby secondary health care centre to the ENT OPD of our institute with the chief complaints of foreign body sensation throat since one month, breathlessness (on & off) since one month (more in supine position) and Hoarseness since 20-25 days. H/o mild pain in swallowing was there but that was not significant, no h/o of haemoptysis or epistaxis was there and no significant personal history was observed. Then an indirect laryngoscopy was done and a suspicious black FB was noticed in the subglottic area which on expiration was seen protruding into the glottic area and upon coughing this FB was seen coming out to supraglottic area.

A contrast CT scan of the neck was done which showed a polypoidal soft tissue shadow of size 10 x 5 mm in right lateral subglottic area with different cuts of the scan showing different position of the soft tissue shadow (fig 1 to 3)

Fig 1 showing soft tissue shadow attached to posterior part trachea in axial cut section

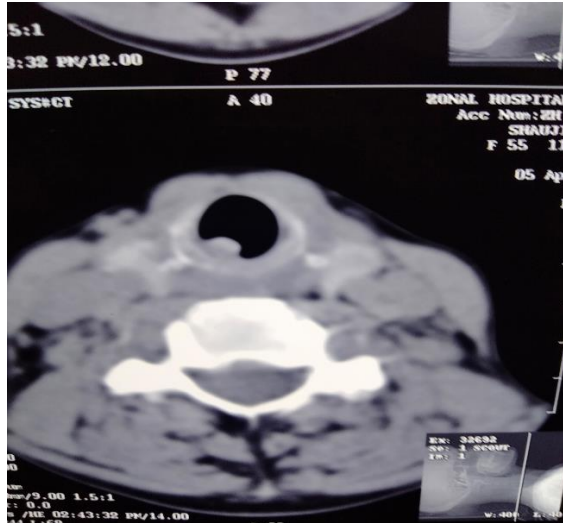


Fig 2 showing soft tissue shadow in central part of trachea

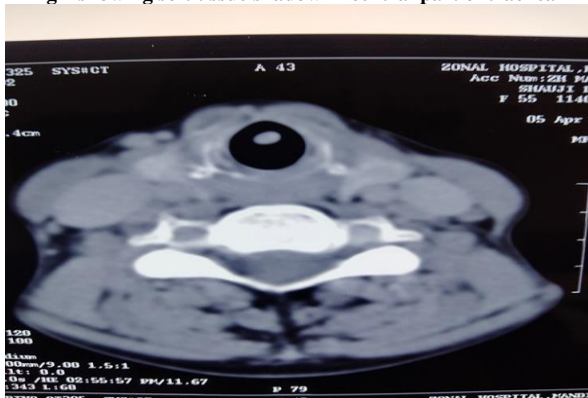


Fig 3 showing soft tissue shadow attached to anterior part of trachea



Fig 4 showing a polypoidal soft tissue in segital cut section of ct scan



BLOOD INVESTIGATIONS

Hb 10.4
 Bt 1 min 20 secs
 Ct 3 min 10 secs

Based on the above clinical and radiological findings a diagnosis of *leech infestation of the larynx* was made. Then immediately patient was planned for removal of FB under general anaesthesia (GA) but because of chances that the leech can dislodge from its site and may go further inside the bronchus, GA was deferred and patient was planned for direct laryngoscopy under the cover of local anaesthesia with 10 % lignocaine spray. Keeping in view the dislodgement of this FB, emergency bronchoscopy unit was kept on standby in case leech slips from original site into the bronchus.

Upon D/L the FB was seen as an aneurysm and when patient was asked to cough it came out of subglottic area to supraglottic space with sucker of the leech clearly seen attached to posterior part of the trachea in subglottic space and moving through glottic area. It was immediately grasped with Luc’s forceps and removed.

Fig 5 showing the removed leech



DISCUSSION

Leeches, a hermaphroditic, blood-sucking parasite are reported in humans and animals as a cause of many problems. They vary in colour, length and shape, and may be black, brightly coloured or mottled. The leeches mainly inhabit in ponds, lakes and streams. Leech infestations are commonly found in the animals but they also have been reported in humans. Leech infestation can occur secondary to accidental ingestion from drinking from or swimming in contaminated water. These leeches live in hosts and can cause anaemia and may act as vectors of animal pathogens.

The main symptoms include haemoptysis, snoring, dyspnoea, cough, dysphagia, recurrent epistaxis, chronic foreign body sensation in throat and nose. The strong jaws and muscular suckers at the anterior and posterior ends can suck the blood of hosts, and this can cause anemia. It has been observed that leeches could suck the blood of hosts nine times more than the size of their body [1]. They secrete an anticoagulant substance containing hirudin, which inhibits the thrombin, factor IXa and other enzymes like antielastase, antitripsine, and antiplasmin, which cause bleeding and anemia. These anticoagulants enable the leech to feed on its host freely [2,3]. Treatment is removal of the leech as soon as possible to prevent complications. Because leeches attach to the mucosa by strong suction, rupture of the worm is a risk. The detachment should be done carefully. The literature suggests lidocaine spray,

hypertonic saline, or vinegar to assist with leech detachment [4,5]. In the present case we planned for removal under GA but because due to GA there is muscle relaxation which can further lead to dislodgement of leech into bronchus and lead to complication like bronchospasm and lung collapse, we tried the procedure under 10% lignocaine spray under the supervision of the anaesthesiologist in the operation theatre. Other methods of removal this FB could have been that we first do a elective tracheostomy and then under either LA or GA we remove the FB.

A similar case to ours was reported by P. Zhang et al [6] in a 40 year old woman from China with tracheal leech infestation. She had presented with haemoptysis, dyspnoea, and a foreign body sensation in her throat, and she was diagnosed with asthma first. In addition, a case was reported by D. Mekonnen et al [7] in a 7 year old male from Ethiopia in whom the leech infestation was located in the proximal trachea. Moslehi et al [8] reported a case of leech infestation of the bronchus in a 15 year female from Iran. S. Senthilkumaran et al [9] described a case of vaginal and Y.-C. Lee et al [10] reported a case of ocular leech infestation.

CONCLUSION

The majority of inhabitants of leeches are ponds, lakes, and streams and in rural areas most of the population use fresh stream as well as pond water for drinking purpose. After the intake of contaminated water, the leech is localized in the upper respiratory system or digestive system. These locations are mostly the nose, nasopharynx, oropharynx, epiglottis and rarely can be larynx and upper trachea.

So any patients specially children or elderly females from rural parts coming to OPD for chronic foreign body sensation throat, recurrent haemoptysis, chronic cough, recurrent epistaxis with an iron deficiency anemia, must undergo an indirect laryngoscopy and nasal endoscopy to r/o leech infestation. Living type of FB in larynx in a awake patient is very rare because of

very strong cough reflex and removal of such type FB is again a challenge for surgeon as well as for anaesthesiologist.

The planning for the removal of living FB from upper part of trachea is very important, particularly if GA is to be given as there is risk of dislodgement which can further lead to complications like bronchospasm, lobular collapse and lung collapse so multiple department collaboration is required which includes ENT, Pulmonary medicine and Anaesthesia.

Declaration by Authors

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