

CASE REPORT

A RARE CASE OF IMPACTED VEGETATIVE FOREIGN BODY IN LARYNX: XANTHIUM STRUMARIUM (CHHOTA GOKHRU)

Richa Gupta . Surendra Singh Moupachi

1. Senior Resident, Department OF ENT, S.S. Medical College, REWA, Madhya Pradesh.
2. Associate Professor, Department OF ENT, S.S. Medical College, REWA, Madhya Pradesh.

CORRESPONDING AUTHOR:

DR Richa Gupta,
D/O Mahesh Chand Gupta,
B.M. 31, Deendayal Nagar,
Gwalior, Madhya Pradesh.
E-mail: dr_richa_tulip@yahoo.com

ABSTRACT: - BACKGROUND: Impaction of foreign bodies in the larynx constitutes a medical emergency and requires immediate intervention. We report a rare case of a Xanthium Strumarium (Chhota Gokhru) impacted in larynx in a 10 year old female who presented with complaint of respiratory distress & dysphonia in ENT department, S.S. Medical college and associated hospital, Rewa (M.P.). Direct laryngoscopy was performed for its removal. The case report thus emphasizes that early detection by meticulous history, clinical findings, imaging modality & prompt management remains basis for favourable outcome.

KEYWORDS: Chhota Gokhru, Direct Laryngoscopy, Larynx, Xanthium Strumarium.

INTRODUCTION: Foreign body impaction commonly occurs in children, mentally challenged, intoxicated adults, and in some manual professions such as electricians, fishermen, and carpenters who hold small items between their teeth while they are working [1]. Presentation of impacted foreign body varies according to its site and size. Usually, patients present with respiratory distress, change in voice quality, or swallowing problems that are preceded by a vigorous or severe attack of choking and coughing [2, 3].

CASE REPORT: Pinki, a 10-year-old female child was brought to ENT Department S.S. Medical college & associated Hospital by her parents with history of swallowing of a Vegetative foreign body Xanthium Strumarium i.e. Chhota Gokhru (local name) [Fig. i] accidentally while playing. Patient complained of dysphonia, pain in throat and difficulty in breathing. On examination patient had mild respiratory distress. There was no cyanosis or pooling of saliva, no intercostal indrawing. Air entry was bilaterally equal on chest auscultation. Patient was sent for Soft Tissue X-ray neck & chest anteroposterior and lateral view that showed a soft tissue shadow of foreign body lying at the level of larynx i.e. fourth & fifth cervical vertebra [Fig. ii]. The patient was taken into emergency OT immediately. General anaesthesia was given without intubating the patient. Direct laryngoscopy was done. The foreign body was seen lying sagittally on right vocal cord, which was removed with the help of forceps. Immediate post-operative period was uneventful.

DISCUSSION: Foreign body of vegetative origin (sharp & pointed) especially in this case report is relatively rare. *Xanthium strumarium* L. Compositae [Fig i] is a common weed found in India [4]. In

CASE REPORT

different Indian languages *Xanthium* is known as banokra, chota dhatura, chota gokhru, kuthua (Hindi) godrian (Gujrati), aristha, itara, kambu-vanamalini, sarpakshi (Sanskrit), dumundi, dutundi (Marathi), maruloomatham (Tamil), maruluummatti (Kanarese), and marulam athangi (Telugu). The reason behind its common name chota gokhru is the shape of its fruit, which look likes the cow's toe (chota - small; go - cow; khuru - toe). In many parts of India, it is known as adhasisi (in English adhasisi means hemigrania; as this weed is used for the treatment of this common disease). In English, *Xanthium* is known as cocklebur or burweed. The genus *Xanthium* includes 25 species, all of American origin. Two species of *Xanthium*, *X. indicum* and *X. strumarium* have been reported in India. The origin of *X. strumarium* is North America. It was introduced in India and spread like weed. It commonly grows in waste places and along river banks in warmer parts.

X. strumarium is an annual herb with a short, stout, hairy stem. Leaves broadly triangular-ovate or suborbicular; flower heads in terminal and axillary racemes; white or green; covered with hooked bristles. Fruit is obovoid, enclosed in the hardened involucre, with 2 hooked beaks and hooked bristles. Flowering time in India is August-September. It can be propagated through seeds. This weed is easily dispersed through animals as the fruits have hooked bristles and 2 strong hooked beaks (Agharkar 1991).

Objects characteristics such as shape, dimension, and consistency are important in order to determine the damage that might occur. In our patient Vegetative foreign body inhaled was obovoid in shape with hooked beak and bristles [Fig. iii]. Fortunately, there is often a history consistent with foreign body inhalation from the patient themselves similarly as in our case report where patient and other colleagues playing with her witnessed the inhalation and brought the similar foreign body to demonstrate the object's appearance.

The child who has aspirated foreign body can present to the physician in several ways. However, when a primary care physician gets a history of choking, hoarseness and cough preceding severe respiratory distress especially in a child eating any foreign object unsupervised, the physician should have a high index of suspicion for impacted foreign body in the larynx until proven otherwise. The chief presenting complaint in our patient was dysphonia, pain in throat and difficulty in breathing. The clinical presentation of our patient was in accordance with previous studies [5].

Plain radiographs of the lateral soft tissue of the neck and chest were necessary in the work-up of the patients as it is often difficult to determine the exact location of the object from the history and physical examination. In our case study soft tissue shadow was seen at the level of fourth & fifth cervical vertebra (C₄ & C₅) [Fig. ii].

Management of foreign body air passage depends on the type and location of the object. In our case report we performed direct laryngoscopy to retrieve the foreign body .

CONCLUSION: The case report describes impaction of a Impacted Vegetative Foreign Body in Larynx i.e. *Xanthium Strumarium* (Chhota Gokhru), relatively rare object to be found in larynx and its removal with guided telescopic laryngeal examination.

The case report thus emphasizes that early detection by meticulous history, clinical findings, imaging modality & prompt management remains basis for favourable outcome. Operating personnel's role is fundamental in educating caretakers dealing with such patients, not only from a preventive point of view, but also in diminishing the impact that this kind of injuries has on public

CASE REPORT

health. The condition is rare in this region, but far more dramatic and life threatening than bronchial foreign bodies. The history may not indicate the diagnosis, especially in the ethnic minority races where there is a language barrier. Suspicion of the diagnosis by the casualty officer and the immediate attendance of an experienced otolaryngologist may be life saving.

All operating equipments, proper anaesthetist team and operating surgeon team should be ready before attempting foreign body removal. Time invested in preparation and planning will usually yield speedy recovery of the patient.

CONSENT: Written informed consent was obtained from the patient's father for publication of this case report and accompanying images.

FUNDING: None

CONFLICT OF INTEREST: None

REFERENCES

1. T. K. Hazra, A. K. Ghosh, P. Roy, S. Roy, and S. Sur, An impacted meat bone in the larynx with an unusual presentation. *Indian Journal of Otolaryngology and Head and Neck Surgery* 2005 vol 57; no. 2; pp. 145-146.
2. A. Banerjee, S. Rao, S. K. Khanna et al, Laryngo-tracheo-bronchial foreign bodies in children. *Journal of Laryngology and Otology* 1988, vol. 102; no. 11; pp. 1029-1032.
3. N. E. Wiseman, The diagnosis of foreign body aspiration in childhood. *Journal of Pediatric Surgery* 1984, vol 19; no. 5; pp. 531-535.
4. Oudhia, P., Phyto-sociological studies of rainy season wasteland weeds with special reference to *Parthenium hysterophorus* L. in Raipur (India) district. *Asian J. Microbiol. Biotech. Environ. Sci.* 2001; 3(1-2):89-92.
5. Kent SE, Watson MG, Laryngeal foreign bodies, *J. laryngolotol.* 1990 104:131-133.



Fig i showing Common weed Xanthium Strumarium i.e. Chhota Gokhru

CASE REPORT

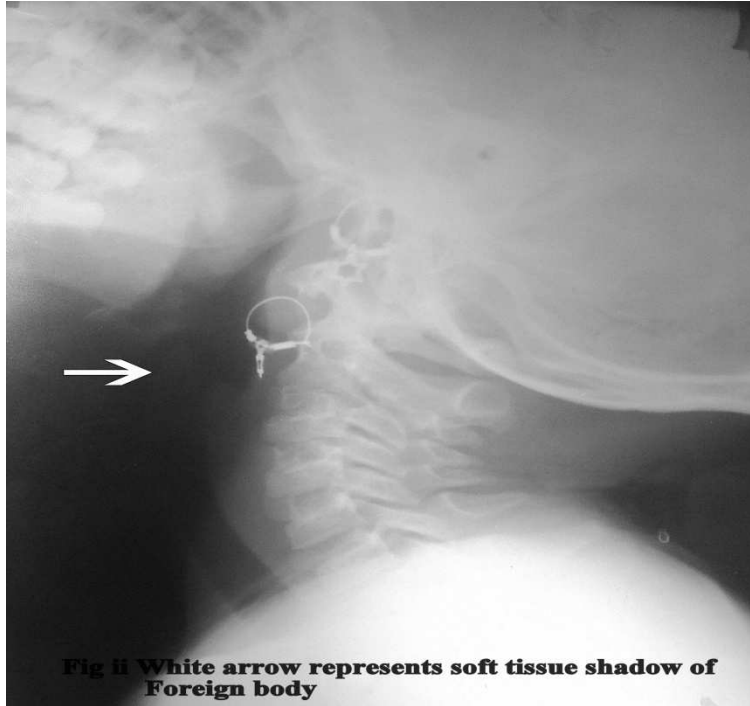


Fig iii showing Retrieved Foreign Body (Chhota Gokhru)