

Approach to Impacted Foreign Bodies in Upper GIT – Ayurvedic Viewpoint

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Short Article

Sathish HS^{1*}, Rashmi TM², Mithun B³ and Narmada MG⁴

¹Professor, Department of Shalya Tantra, TMAE's Society Ayurvedic Medical College, Shimoga, Karnataka, India

²Associate Professor, Department of Kayachikitsa, TMAE's Society Ayurvedic Medical College, Shimoga, Karnataka, India

³Professor, Department of Shalaky Tantra, ALN Rao memorial Ayurvedic Medical College, Koppa, Karnataka, India

⁴Professor, Department of Shalya Tantra, Government of Ayurvedic Medical College, Bengaluru, Karnataka, India

*Correspondence author

Sathish HS

Professor

Department of Shalya Tantra

TMAE's Society Ayurvedic Medical College

Shimoga

Karnataka

India

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Abstract

Impacted foreign bodies in the Upper GIT are frequently encountered in the Gastroenterology department, identification of such foreign bodies and its safe extraction without hindering the normal physiology requires a stupendous clinical skill and technique. An earliest record of such condition and its approach based on the material trapped is detailed in Sushruta's treatise, Sushruta Samhita. And this is the earliest use of endoscopic procedure in extracting the impacted foreign bodies. Among these methods, Sushruta's trap method is highly praiseworthy and commendable in extraction of the foreign body.

Key words: Foreign body; Sushruta's Trap Method.

Introduction

Foreign bodies or ingested hard bolus of food poses threat to the life of an individual when it is impacted either in larynx, pharynx or in esophagus. Children are the usual victim for impacted foreign bodies due to immaturity regarding differentiating the food items with other materials like toys and under developed organs [1, 2].

Sushruta classifies all foreign bodies into two types based on the attachment to the neighbouring structures upon its insertion into the body as loosely attached and fixed or impacted. Foreign body removal from the actual site is solely based on the structures it had invaded, its relation to surrounding vital structures and magnitude of injury.

Fifteen different modes for extracting a loose foreign body have been detailed in the surgical treatise of Sushruta. For impacted foreign bodies the method of extraction is detailed according to region it is involved. A precise history with clinical examination findings assist in planning the method of extraction of the foreign body. In contemporary science, Balloon extraction of esophageal foreign bodies is considered as safe and cost effective procedure.

Impacted Foreign Bodies

Ayurvedic firmly believes any material impedes or obstructs the normal function of the body and which causes various forms of pain is considered as Shalya which can be both, either external factor like foreign body or internal factor like impacted stool. For instance, stool in an individual with chronic constipation is considered as Shalya and in the same way, any bone particle or extraneous material enters the tissue by virtue of trauma is also a Shalya.

Routes of Extraction of Foreign Body

The foreign bodies entered invading the normal framework of the body excluding those which entered through natural apertures of the body must be extracted either in two ways by withdrawing or extracting through the way other than that of its penetration- Anuloma [in the direction of penetration], the opposite of this considered as Pratiloma – Reverse extraction of foreign body.

Direction of Foreign Bodies [3]

Foreign bodies enter into the body through any one of the 5 directions [4].

- Upward
- Downward
- Backward
- Oblique
- Straight

Through these directions foreign body pierce the tissue – skin, fat, muscle, bone or any cavity or internal organs, thus causing wound.

Identification of Impacted Foreign Bodies

A proper detailed history, clinical examination and advancement in technology will aid in identifying the foreign body, its location and impact on the body [5].

Approach to Impacted Foreign Bodies [6]

Descriptions of method of extraction of impacted foreign bodies in Upper GIT are found in Sushruta's treatise, wherein he classified four modes of approach based on the material trapped.

1. Shellac type of foreign bodies – It includes materials which can be easily melted by heat
2. Non meltable foreign bodies
3. Bone – In this Sushruta's Trap method is being used
4. Morsel of food

Shellac Type of Foreign Bodies

A metal tube is gently inserted inside the pharynx avoiding injury to adjoining structures, once it comes in contact with the foreign body; a heated metal rod is gently inserted inside the metal tube which was placed earlier inside the pharynx. Due to the heat the shellac gets easily melted and attached to the tip of the metal rod, and then a small spray of water to the rod ensures the attachment of shellac to the metal rod. After confirming the attachment of the foreign body, gently it is extracted out along with the metal tube take due caution not to injure the surrounding tissue.

Non Meltable Foreign Bodies

Regarding the non meltable type of foreign bodies trapped inside the pharynx should be extracted by the method mentioned for the Shellac type of foreign bodies with slight modification, since these foreign bodies does not melt to heat, hence a rod containing in its tip a sticky shellac or any other suitable material which gets attached when it comes in contact with the foreign body is being used. Prior to this, a metal rod is gently inserted inside the pharynx as mentioned in the previous approach to shellac type of foreign bodies.

Bone – If gets Impacted in the Pharynx – Remedial Intervention – 'Sushruta's Trap Method'

If a bone gets impacted in the pharynx accidentally, an exceptionally remarkable remedial method is prescribed by Susruta, in which, a long thread attached with a ball of hair and is gently inserted inside the throat, the surgeon should hold the other end of the thread in his hand. Patient is made to consume a large quantity of liquid or water in order to the fill the stomach. Then the patient is administered with emetic drug to initiate gastric lavage, once the surgeon gets confirmation about the

ball of hair being attached with foreign body, subsequently the other end of the string of thread already held by the surgeon has to pull out in order to extract the foreign body. A soft twig can be used to remove any residual fragments of the foreign body and to cleanse the oral cavity. The resultant wound is applied with honey mixed with ghee or patient is advised to lick the formulation comprising of *Triphala* powder, honey and sugar.

Approach to Morsel of Food Impacted in the Throat

In cases wherein morsel of food gets impacted in the throat, then a strong blow by hands should be given on the patient's back just below the neck, the blow will induce cough and the patient will cough out the obstructed morsel of food. Once the complete morsel being extracted out, then patient is administered with strong wine to nullify the pain and the discomfort.

Conclusion

Exquisite, fabulous modes detailed for extraction of impacted foreign bodies in the upper GI has been left unexplored over the years. Four different modes of removal of foreign bodies based on the type of the materials are the earliest practice of endoscopy and the inventor has not been credited with the due respect for his contribution.

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