

## AYURVEDIC PILL CAUSING OESOPHAGEAL IMPACTION: AN UNUSUAL CAUSE OF DYSPHAGIA IN AN ELDERLY PATIENT

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KEYWORDS	ABSTRACT:
Dysphagia, Ayurvedic, impaction, oesophagus	Dysphagia in geriatric age group results in multiple negative health consequences including malnutrition, dehydration, aspiration pneumonia, depression and poor quality of life. A 70-year-old female presented to our emergency department with difficulty in swallowing solids, liquids and saliva following ingestion of an Ayurvedic tablet. She reported a sensation of something stuck in her throat. Physical examination findings of her oral cavity and oropharynx were unremarkable. A radiograph of the lateral view of neck revealed a radio opaque foreign body just anterior to C7 vertebral body, which was confirmed by CT as well. The pill was successfully removed via rigid hypopharyngoscopy and oesophagoscopy without complication. The patient was discharged home after a day of observation and remained asymptomatic at follow-up. This case illustrates a rare cause of oesophageal impaction by Ayurvedic pill and reinforces the importance of a detailed medication history and prompt intervention in elderly patients with acute dysphagia.

### INTRODUCTION

Foreign body impaction in the esophagus is a recognised clinical issue, particularly among elderly patients<sup>(1)</sup>, and it can result in significant morbidity if not promptly addressed. The majority of swallowed foreign bodies will pass spontaneously through the gastrointestinal (GI) tract uneventfully in less than 7 days if they are not impacted in the esophagus.<sup>(2)</sup>

Foreign bodies tend to lodge in sites of constriction in the oesophagus. These are usually the points of natural narrowing which are the high pressure zones at 15 and 25 centimeters from upper incisors, but the reason for impaction at these levels may have more to do with motility patterns than anatomy<sup>(3)</sup>. Between pharynx and cervical oesophagus a high pressure zone is formed which is known as upper esophageal sphincter (UES).

Ayurvedic medicine, a system of traditional healing has gained popularity worldwide. for its perceived natural approach to health. However, Ayurvedic pills, which can be larger or more compact than conventional medications, may present a risk for impaction in the esophagus. Delay in managing such cases can lead to negative health consequences in the elderly<sup>(4)</sup>. With this report we aim to build upon our knowledge of of this rare foreign body and also anticipate and tackle specific problems in its management.

## CASE REPORT

A 70 year old lady presented to emergency department with complaints of difficulty in swallowing liquids, solids and saliva and occasional pain and irritation in throat since 4 hours after ingestion of a spherical black Ayurvedic tablet which she has been taking since 1 month in view of dry cough.

We were lucky enough to have a glimpse of what we were dealing with as her attenders had brought with them the pack of pills that she was consuming (Figure 1). One interesting fact was that the pills were of variable consistency. Apart from the sensation of “something stuck in the throat” there was no other alarming clinical findings like shortening of breath, noisy breathing, respiratory distress, sudden onset cough.



Figure 1: The Ayurvedic pill that the patient was consuming



Figure 2: Lateral X-ray of neck showing foreign body at level of C7

The patient was a known hypertensive on medications, so apart from a blood pressure recording of 170/100 mm of Hg, the other general physical findings were all within normal limits, including saturation at room air. Clinical examination of the oral cavity and oropharynx also didn't reveal any remarkable findings. A lateral radiograph of the neck revealed a radio opaque shadow at the C7 level in the oesophagus(Figure 2), which was confirmed by a CT scan of the neck(Figure 3 and4).



Figure 3: Sagittal section CT showing foreign body at C7-C8 level

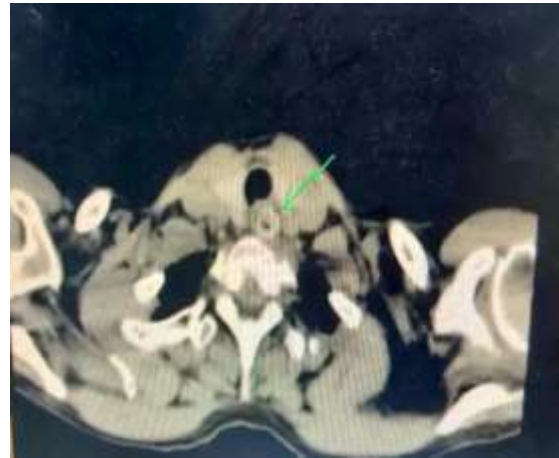


Figure 4: Axial CT showing the location of the foreign body



Figure 5: The extracted Ayurvedic tablet

Being extremely skeptical with regards to the contents of this pill, the decision was made to shift this patient to the operating room for rigid hypopharyngoscopy and oesophagoscopy under general anaesthesia. The foreign body was noted in the cervical oesophagus, 18 cms from the upper incisors, which could be partially removed with forceps. However following this the pill got dislodged and went further down into the thoracic oesophagus, about 27 cms from the upper

incisors. The foreign body was finally removed with the aid of rigid oesophagoscope. The remaining powdered remnants were suctioned out. Superficial mucosal injury was noted from 25 -27 cms from the upper incisors.

Patients post operative period was uneventful and she tolerated sips of water comfortably. She was kept under observation and then discharged once she managed regular diet with ease.

## DISCUSSION

This case report highlights an unusual etiology of dysphagia in a 70-year-old female which was impaction of an Ayurvedic pill in the upper cervical oesophagus. Cricopharynx is one common site where the foreign body can get wedged which can damage airway or injure the upper end of the esophagus. While dysphagia is a common presenting complaint, its causes are diverse, ranging from mechanical obstructions like strictures and tumors to motility disorders and neurological conditions. Medication-induced esophagitis and esophageal impaction are recognized but often under-appreciated causes of dysphagia.

The esophagus measures approximately 25 cm long in a mature adult and begins at the inferior border of the cricoid cartilage (C6 level), descending in the posterior mediastinum through the esophageal hiatus of the diaphragm and terminating at the stomach (T11 level). During its course, the esophagus encounters three anatomic constrictions: 1) at the level of the cricopharyngeus muscle, 2) as it travels posterior to the aortic arch/left main bronchus, and 3) at the level of esophageal hiatus of the diaphragm. These areas of constriction are considered the most frequent sites for a foreign body or food impaction to occur.<sup>(5)</sup>

Ayurveda is a comprehensive scientific medicinal system indigenous to India. The term Ayurveda means ‘knowledge of life’, which comprises two Sanskrit words, *Ayu* (life) and *Veda* (knowledge or science)<sup>(6)</sup>. Mercury along with sulphur (mercury sulphide) is one of the ingredients used in many traditional Ayurvedic medicines<sup>(7)</sup>. Saper *et al* have reported that one out of five Ayurvedic herbal medicine products (HMPs), produced in South Asia contains potentially harmful levels of lead, mercury, and arsenic<sup>(8)</sup>. In our case this lady was taking this pill since 1 month for dry cough.

We wanted to bring out several intriguing observations that we made in this uncommon case of impaction of an Ayurvedic pill, with less than five documented cases in literature. Foremost being the importance of good analytical history. The answer to the question on “what went wrong that day” was given on persistent questioning she did confess to taking the pill on that day with a small sip of water. Although the pill looked like the obvious culprit, the absence of classical clinical signs made us want to evaluate her further with investigations. Although the plain radiograph of the neck helped in proving foreign body at the upper cervical esophagus, it was a CT scan which provided us valuable information about the location and extent of impaction. Even then we didn’t know about the status of the esophageal mucosa.

The oesophagoscope was a diagnostic tool in visualisation of the impacted pill and the pyriform fossa. The timing to surgery is an important aspect that we would like to discuss. We would recommend not waiting for the tablet to pass spontaneously or dissolve. Because of the content of the pill was not known there was a possibility of it swelling and causing further dysphagia due to the hygroscopic nature or erosion of the esophageal wall due to the presence of its constituents. Hospital stay and morbidity can be decreased only if treated as early as possible<sup>(9)</sup>. Impacted foreign bodies in the esophagus, if left without management, may cause mucosal inflammation, deep neck abscess, mediastinitis, and even esophageal perforation<sup>(10)</sup>.

Anticipating setbacks and preparations of back up plans and strategies to mitigate them is a must for every surgery. Here after dis impacting the pill from the first constriction, it got lodged in possibly the second constriction site which we then executed.

## CONCLUSIONS

Impaction of pill leading to complete obstruction of oesophagus is less frequently reported in literature. In the lady who presented to us her age, potentially reduced esophageal motility, and the size and composition of the pill likely contributed to the impaction. This case underscores thorough history taking, including the use of complementary and alternative medicines, in evaluating sudden onset dysphagia. Prompt diagnosis and intervention as in this case is essential to prevent disastrous complications like mucosal injury, aspiration and perforation. We hope to raise awareness into the need for stringent quality controls for alternative medications in line with that for conventional pharmaceuticals. Patients should be educated about the proper administration of all medications, including the importance of adequate fluid intake, cutting the medications into small pieces especially if they are larger in size and remaining upright after ingestion.

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