



## Huge Oesophageal Cow Bone in the Elderly: A Case Report

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### Introduction

Foreign body impaction in the oesophagus is a common presentation in children unlike in the elderly in our environment. Ingestion of foreign body in adults was found in special groups of population such as psychiatric patients, prisoners, elderly and alcoholics<sup>1</sup>. Most ingested foreign bodies become impacted often in the oesophagus<sup>2</sup>. Oesophageal foreign body could be classified into organic and inorganic. Organic foreign bodies in the aged include meat, food bolus and bone while the inorganic are dentures, medicine, medicine packing etc. The bone could be from fish, chicken, cow and so on. The type of foreign body in the oesophagus differs between the paediatrics and adult group. In adults, it is often caused by meat, bones, denture and medicine packing<sup>3</sup>. Meat bolus was the only impacted foreign body in the oesophagus seen in ages between 70-90 years<sup>4</sup>.

Elderlies are prone to foreign body ingestion due to the reduced intraoral sensitivity, impairment of swallowing coordination, visual problem and poor dentition<sup>5</sup>. Neurodegenerative disease requiring cervical spine fixation has been reported as a risk factor for foreign body ingestion among 65 years and above<sup>6</sup>. Denture usage which reduces intraoral sensation and edentulous has also been cited<sup>7</sup>.

Foreign body impaction in the oesophagus among the old is a major cause of morbidity and mortality. The aged presents as surgical emergencies following foreign body in the oesophagus with associated throat pains and dysphagia. It could be complicated with mucosa inflammation, deep neck abscess, oesophageal perforation and mediastinitis<sup>8</sup>. Rigid oesophagoscopy and foreign body removal is one of the surgical options of oesophageal foreign body impaction.

There is paucity of information on ingestion of foreign body among the elderly in our immediate environment. Thus, we decided to present this case of huge cow bone impaction in the upper oesophagus of an elderly man seen in University of Port-Harcourt Teaching Hospital, Port-Harcourt, Nigeria.

### Case Report

A 74 years old male who presented into the accident and emergency unit of UPTH on account of throat pains, drooling of saliva and difficulty in swallowing of two days duration which started following a meal. He was referred from a peripheral hospital. On examination, he was in painful distress, however not in respiratory

distress, afebrile, not pale, anicteric and mildly dehydrated. Oropharyngeal examination showed pooling of saliva in the posterior pharyngeal wall and there was no missing denture or tooth. There was pointing sign to the lower neck. Plain radiograph of the soft tissue neck (lateral view) showed a radio-opaque long foreign body at the level of C6 to C8 as seen in fig1. A diagnosis of foreign body in the upper oesophagus was made. The patient had rigid oesophagoscopy and huge cow bone was removal from the upper oesophagus with grasping forcep as seen in fig 2. Intraoperative findings revealed a huge cow bone

impacted in the upper oesophagus with part of it buried in the oesophageal mucosa which resulted in mucosa injury and bleeding following removal. The bleeding was controlled by application of pressure on the bleeding points using gauze. Subsequently, nasogastric tube was passed under direct vision and left insitu for 7 days. Patient was stable throughout the post-operative period. Peritubal feeding was commenced on the 5<sup>th</sup> postoperative day and was well tolerated. Nasogastric tube was removed on the 7<sup>th</sup> postoperative day and thereafter patient was discharged home in stable clinical condition.





### Discussion

Ingestion of huge cow bone in the elderly is not a common finding in our environment. However, other organic foreign bodies have been reported in 65 years and above by several researchers<sup>5,6,7</sup>.

Our case apart from being aged does not have any other risk factor for foreign body ingestion such use of dentures, edentulous, visual impairment and neurodegenerative disease. Edentulous has been reported as a risk factor for foreign body ingestion<sup>7</sup>. This could be due to poor mastication of food and reduced intraoral sensation associated with loss of teeth. Underlying oesophageal stricture disease accounted for 83% of foreign body ingestion in the elderly persons<sup>5</sup>. This is followed by previous cerebrovascular disease leading to impaired swallowing or intraoral sensitivity<sup>5</sup>. Age related changes such as decreased fatty and connective tissue bulk in the tongue, alveolar bone atrophy and decreased oesophageal muscle tone have been implicated

leading to slowing down of all the three phases of swallowing in the elderly<sup>9</sup>. Other related neurological disorders include motor neuron disease, parkinson's disease, diabetic neuropathy, polymyositis and arthritis involving the temporo-mandibular joint<sup>9</sup>.

The typical early symptoms of foreign body in the upper oesophagus are throat pains, difficulty in swallowing and drooling of saliva which was seen in the index case. This could be attributed to the non-migratory and impacting nature of the foreign body<sup>10</sup>. An oesophageal foreign body should be seriously considered when the elderly who in nonverbal due to previous cerebrovascular disease or dementia suddenly refuses oral intake<sup>5</sup>.

Plain radiograph of the soft tissue neck is an essential initial tool in the diagnosis of foreign in the oesophagus as seen in the index case. Contrast-enhanced oesophagography is indicated when foreign body is not radiopaque using a dilute solution of inert barium sulfate or water soluble nonionic contrast agent as these minimize complications to the lungs and mediastinum in case of aspiration or oesophageal perforation<sup>11,12</sup>.

Rigid oesophagoscopy under general anaesthesia remains the effective and safe method of oesophageal foreign body removal<sup>13</sup> as was seen in our case. Contrarily, cervical oesophagotomy for impacted oesophageal clam shell after failed rigid oesophagoscopies has been reported<sup>6</sup>. Medical management of oesophageal foreign body especially meat or food bolus using proteolytic agent such as papain and buscopan as spasmolytic agent has been documented<sup>7,14,15</sup>. The trial of medical management can be opted for in obstruction less than 24 hours with no sign of complication<sup>7</sup>.

There could be complications associated with rigid oesophagoscopy. The index case had mucosal bleeding which was controlled by pressure packing with gauze and nasogastric tube was passed to stent the oesophagus and for feeding. Other complication such as perforation has been noted and retrieval-associated complication rate was found to be 13.3%<sup>5</sup>.

### Conclusion

Bone impaction in the oesophagus is a major cause of morbidity and mortality among the elderly. There are many risk factors that predispose the elderly to foreign body ingestion. Food preparation and feeding in the aged should be supervised closely by caregivers. Additionally, visual impaired elders and those with previous cerebrovascular accident should be fed by their caregivers. These measures when put in place would go a long way to prevent similar future occurrence and would reduce the incidence of foreign body ingestion generally among the elderly persons.

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