Introduction: Sharp foreign bodies in the oesophagus especially open safety pins pose a real challenge to otolaryngologists because of its potential of perforation. There are different techniques described for removal of open safety pins with pointed edge facing up - rotating it in the stomach, engaging the pointed edge into the scope and withdrawing it, or closing it in the lumen of oesophagus, but all these techniques require experience. Rigid scope is preferred for removal of sharp and penetrating foreign bodies. The sharp ends of the foreign body or entire foreign body itself can be introduced into the lumen of rigid endoscope and removed without any risk of lacerating the mucosa during extraction. No such protection is possible with flexible endoscope.

Case Report: We present two interesting case reports of open safety pins, one with open sharp end pointed up and the other pointed down. The age of the patients is extremes of age - one year, the other 65 year old. We followed the second method in both the cases.

Case report -1: A 65 year old woman presented with accidental impaction of open safety pin in the oesophagus while trying to clear her teeth after lunch after five days. Radiological examination showed it to be impacted opposite T-1 vertebra. She was complaining of pain during deglutition. Vitals were stable, chest was clear. Emergency oesophagoscopy was planned under GA. The sharp end being impregnated inside the oesophageal mucosa could not be visualized. Ryle's tube was introduced and kept for 2 days. The post-operative recovery was uneventful.

Case report - 2: A one and a half year male child ingested an open safety pin while playing and presented with pain in throat after ingestion of an unknown foreign body as his parents could not give any proper history regarding the type of foreign body however the baby had excessive salivation. On radiological examination it was found to be an open safety pin in oesophagus with the open sharp end facing upwards opposite to the T-6 vertebra. Chest was clear bilaterally with adequate air entry and vitals being stable. Emergency oesophagoscopy was planned under GA. The sharp end being impregnated inside the oesophageal mucosa could not be visualized. Ryle's tube was introduced and kept for 3 days post-operative recovery was uneventful.

Discussion: Foreign body ingestion is common in children, but frequently seen among adults also. Foreign body is ingested accidentally but occasionally homicidal or suicidal. Most common foreign bodies in children are coins, but marbles, button, batteries, safety pins and bottle tops are also reported. In adults common foreign bodies are bones, dentures and metallic wires. Foreign bodies which have gone beyond the oesophagus will pass uneventfully through intestinal tract in 70-80% cases. The level at which progress is impeded are cricopharynx, pylorus, duodenum, duodenojejunal flexure etc. Radiological localization is mandatory for decision making regarding the removal. Smooth foreign bodies do not pose much threat but may cause airway obstruction.
Sharp foreign bodies, if not retrieved at the earliest may penetrate oesophageal wall and cause complications. So, aggressive approach is required for sharp foreign bodies like, chicken bone, safety pin, fish bones. The best method of removing impacted foreign body is controversial. Rigid endoscopic removal of foreign body is safe and effective, but often requires GA. Technological advances have allowed us to master the techniques of foreign body removal, but still complications do occur. Pulmonary complications are most common, followed by retropharyngeal abscess and local infectious complications. Complications rate of 12.6% in adults and 4.6% in children has been reported, pulmonary complications being the most common in children and retropharyngeal abscess in adults. Retropharyngeal abscess in adults is commonly due to sharp foreign bodies like fish bone.

Conclusion: Sharp foreign bodies specially open safety pins in oesophagus are dangerous as oesophageal rupture may occur during its removal. In our two cases the open sharp ends of the safety pins were in opposite direction and also the two cases were in extreme of ages. Yet could remove the safety pins safely by taking the sharp end of the safety pins inside the rigid oesophagoscope before removal. Thus this is an effective method of removing open safety pins in our setup where sophisticated instruments are unavailable.

References