

Foreign Body

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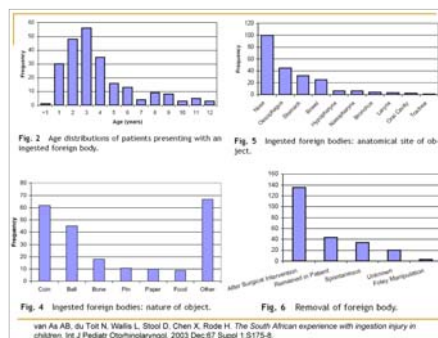


Fig. 2 Age distributions of patients presenting with an ingested foreign body.

Fig. 5 Ingested foreign bodies: anatomical site of object.

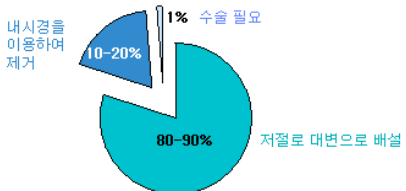
Fig. 4 Ingested foreign bodies: nature of object.

Fig. 6 Removal of foreign body.

van Ae AB, Gu Toit N, Wallis L, Stool D, Chen X, Rode H. The South African experience with ingestion injury in children. *Int J Pediatr Otorhinolaryngol.* 2003 Dec;57 Suppl 1:S175-8.

<http://www.rnh.gov.tw/ENT/DocLib/7/Foreign%20bodies%20in%20oropharynx%20to%20esophagus%2020060816.pdf>

Natural history of ingested foreign body



내시경을 이용하여 제거 : 10-20%

수술 필요 : 1%

저절로 대변으로 배출 : 80-90%

대한의사협회 사이버연수원 자료

Risk factors for foreign body



소아 : 80% 차지

치아가 없는 성인들

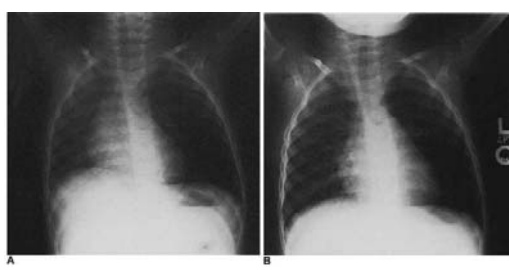
복역수

정신병환자

• 성인에서 가장 큰 위험인자 : **의치 착용**

대한의사협회 사이버연수원 자료

Hyperinflation on side of left **bronchial** foreign body (a peanut fragment)



Cummings: Otolaryngology: Head & Neck Surgery, 4th ed

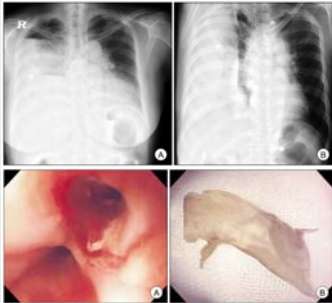


Severe complication is possible!

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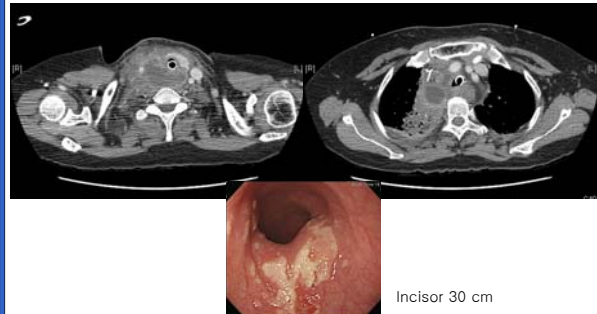
Fatal empyema by esophageal foreign body
- fish bone



식별 받았다. 입원 1일에 호흡곤란이 발생하여 기관사관과 기계 환기를 시행하였다. 농흉의 원인을 찾던 중 식도 천공을 의심하여 내시경검사를 시행하였으며, 중부 식도(결장하방 31 cm 부근)에 2 cm의 날카로운 평선 가시가 식도 내에 깊게 박혀 있었으며 2차 병상으로 0.6 cm의 누공이 형성되어 있었다. 악어알껍데기를 이용하여 생선 가시를 제거하였다(Fig. 3). 입원 3일에 전신 미열과 함께 탈색제출술을 시행하였다. 후종격동의 중부 식도에 천공이 있었으며 앞동맥근과 늑간동맥에 막는 반대가 동반된 괴사와 영증이 관찰되었다. 전공 부위의 분할, 외상외적 제거, 종격동 배농술과 공장장염술을 시행하였다. 흉수배액관상에서 Klebsiella pneumoniae가 농경되었으며 격극적인 채취에도 불구하고 재발증이 관찰되어 입원 7일만에 사망하였다.

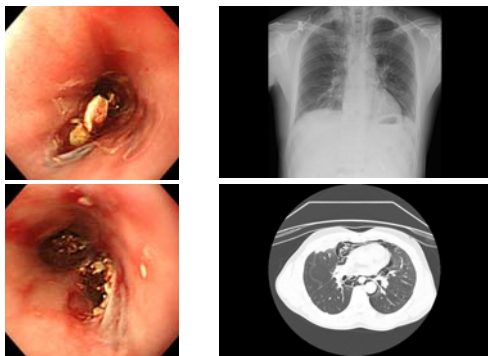
Kim YS. Korean J Gastrointest Endosc 2007;34:320-323

Acute mediastinitis probably due to fish bone



Incisor 30 cm


Foreign body with perforation



내시경 식도이물제거술 후 발생한 인두후
혈종과 동반된 급성 기도 폐쇄 1예
- 광어회와 매운탕을 드신 후 fishbone 걸림



2009년 내시경학회 포스터

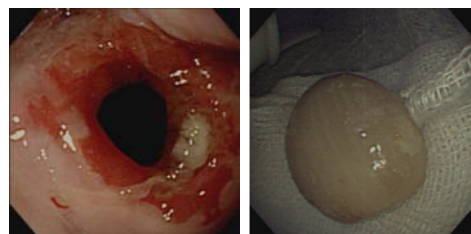


다양한 종류의 식도 이물

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식도암 수술 2년 후 sudden dysphagia



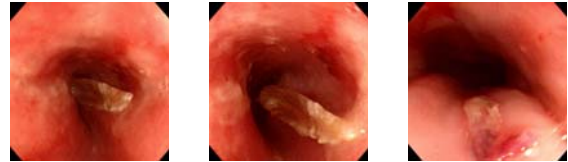
마늘

Esophageal cancer

- impaction of a drug

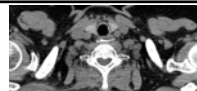


Foreign body in the second physiologic narrowing

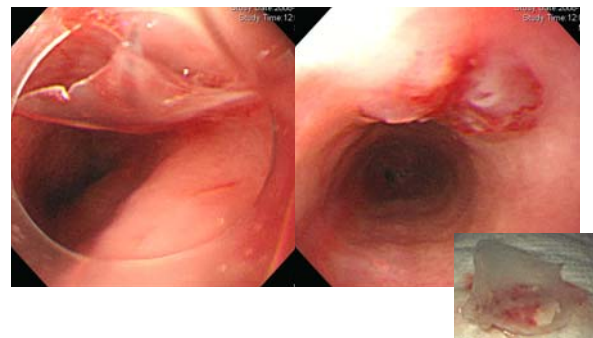


5일 전에 생선 매운탕을 먹은 61세 여자환자
alligator forcep을 이용하여 직접 제거함

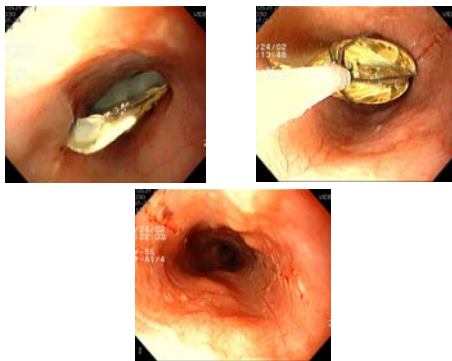
Esophageal foreign body



Esophageal foreign body – fish bone



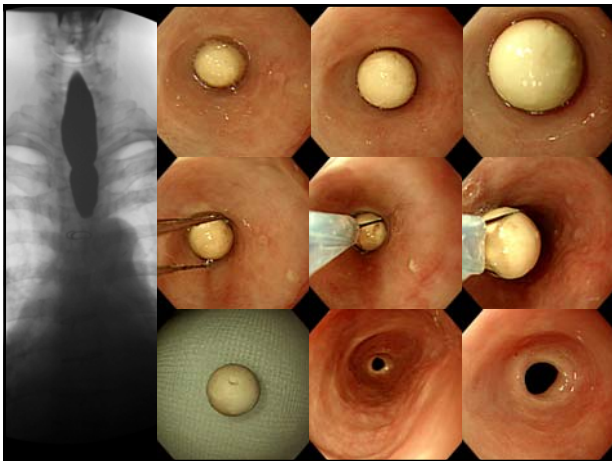
Foreign body removal



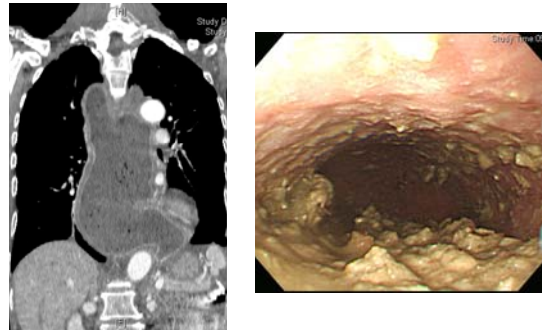
Chicken bone vs fish bone

- The use of plain radiography to diagnose ingested fish bones is equally unreliable, as the degree of radiopacity of the bones depends on the species of fish.
- This is contrary to chicken bones, which are almost always radiopaque.
- A prospective study of 358 patients with fish bone ingestion revealed that the plain radiograph had a sensitivity of only 32%.
- The CT scan has been shown to be more helpful in detecting ingested fish bones. CT scan often reveals a linear calcified lesion corresponding to the bone.

Goh. Dig Dis Sci 2004;49:1935-1937

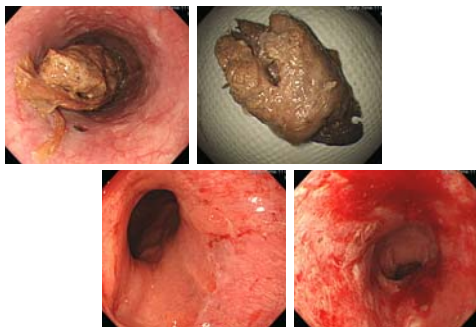


Achalasia에 의한 식도내 음식물



협착이 없는 분의 식도 이물 (갈비)

- hiatal hernia without reflux esophagitis (F/74)



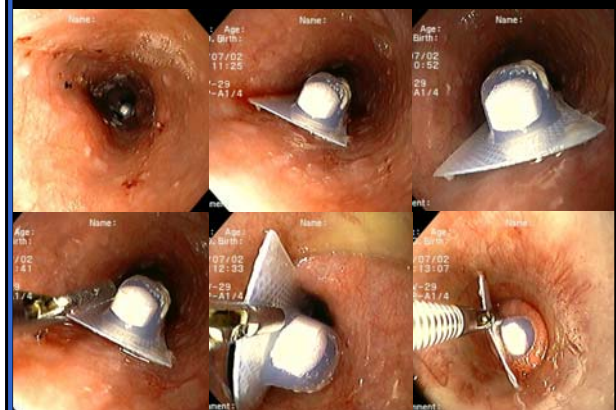
Esophageal foreign body

- Food or true foreign bodies
 - Chicken bones (opaque), fish bones (non-opaque)
 - Coins, toy trucks
- Most often they impact just below cricopharyngeous (70%)
 - Another 20% impact at the level of the aortic arch
 - Another 10% at EG junction
 - Once past the esophagus, most foreign bodies will pass through the GI tract
- Clinical findings of an impacted esophageal foreign body
 - Dysphagia and odynophagia most commonly
 - Even if FB passes, many complain of pain referable to cervical esophagus
- Always check for lead lines in children
 - Chicken bones are usually opaque
 - Fish bones contain less calcium and usually are not

Esophageal foreign body

- Plain films usually do not demonstrate the FB but are still obtained first
 - If negative, then either contrast esophagram or CT if high index of suspicion
- Treatment
 - Removal is most often performed using endoscopy
 - Temporization and surgery are other options
 - An ingested button battery lodged in esophagus must be removed immediately
- Complications of an impacted foreign body
 - Perforation
 - **Delayed bleeding, sometimes fatal**
 - Longer the FB remains impacted (>24hrs), higher incidence of perforation
 - Stricture
 - Diverticulum formation

Foreign Body Removal : Press-through



폐암환자의 식도이물제거

- 낚시 바늘

다양한 종류의 위 이물

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Medication a few hours before EGD

왜 맥반석을 삼켰나?

Table knife in the stomach

© 2005 Elsevier Ltd. Forbes et al. Atlas of Clinical Gastroenterology 3e

Gastric piercing

A 40-year-old woman was admitted because of she accidentally swallowed a foreign object (metallic pin) while she was knitting the day before. She was asymptomatic and had no evidence of complications. Chest and abdominal radiographs were taken. A metallic pin was observed on the plain film of the abdomen at the epigastrium. Three days later another plain film of the abdomen showed the foreign object in the same location; the patient continued to be asymptomatic. Upper endoscopy demonstrated the head of the pin penetrating the gastric wall at the lesser curvature of the antrum (A). A snare was used to grasp the head of the pin, which was withdrawn carefully without complications (B). The pin was 4 cm in length (C). A puncture wound was seen at the level of the prepyloric region. The patient had a favorable outcome and was discharged from the hospital in good condition.

Gastrointest Endosc 2006;63(6):860-861

Migrated esophageal stent

