

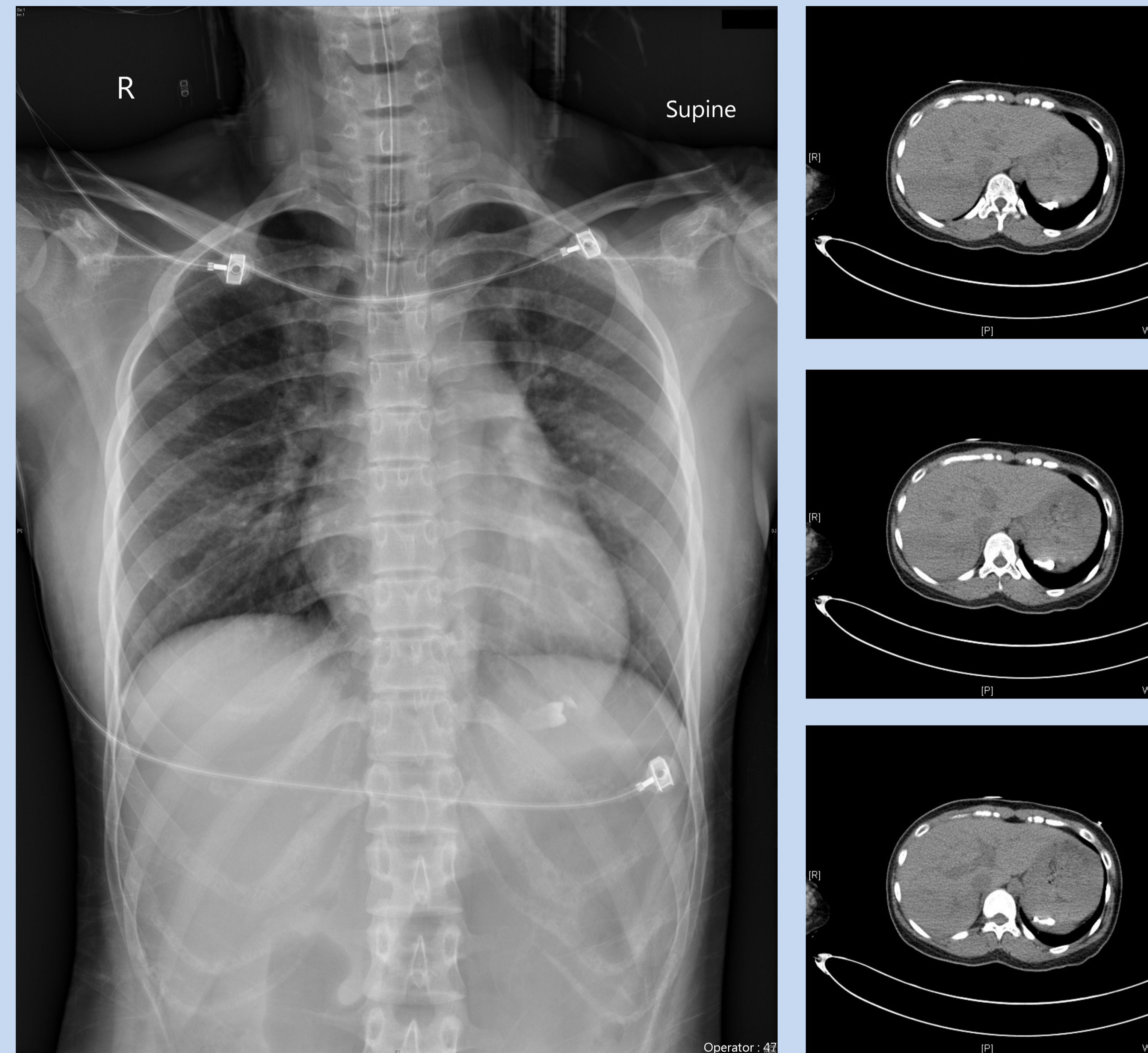
Background:

Foreign body (FB) swallowing or aspiration is a serious accident that could be lethal or leading to significant morbidities. Upper airway obstruction is emergent and life-threatening. Pneumonia, sepsis, gastrointestinal obstruction, bleeding, perforation can be encountered later if the impacted FB is not found and removed in a time-fashion.

Swallowing or aspiration of broken or loosen denture is a known but uncommon complication in patients with maxillofacial trauma. It may be overlooked in the chaotic trauma situation, especially in patients disable from distracting injuries, impaired consciousness or in extreme ages. The natural tooth is radio-opaque and can be readily detected by plain radiography. However, some dental appliances are radiolucent. A high suspicion and organized approach are warranted not to miss or delay the emergency.

Brief Clinical Details:

This 16-year-old girl fell from 5-floor height. She was rescued and brought in by EMTs. On arrival of our ED, she was comatose. Other vital signs were blood pressure 76/43 mmHg, heart rate 140 beats/min, respiration 16 breaths/min. Physical examination was remarkable for a swollen face with lower lip and chin lacerations, right ear bleeding, right knee laceration, and open fracture of both legs. We provided her resuscitation following the ATLS guidelines.



Description of the Relevant Abnormalities:

A tooth-shape radio-opaque FB could be identified at the junction between the chest and abdomen on the chest X-ray after endotracheal intubation. The exact location was later confirmed to be in the stomach by computed tomography.



Why this Image is Clinically/Educationally Relevant?

Risk of teeth swallowing or aspiration is real in patients sustaining major maxillofacial trauma. Detection of the broken teeth can be difficult. Secure the airway first if there is any respiratory symptom or sign. Teeth swallowing or aspiration can only be excluded after adequate imaging examinations of the patient with broken or lost teeth.

Treatment of Choice:

Observation (for some gastrointestinal FBs only)

Removal under direct vision

Endoscopic removal

direct laryngoscopy or video laryngoscopy

fiberoptic bronchoscopy

rigid bronchoscopy

gastroendoscopy

colonoscopy

Ultrasound or CT guided removal

Surgical removal

Further Reading:

- Swanson KL, Edell ES. Tracheobronchial foreign bodies. Chest Surg Clin N Am. 2001;11(4):861-72
- Fidkowski CW, Zheng H, Firth PG. The anesthetic considerations of tracheobronchial foreign bodies in children: a literature review of 12,979 cases. Anes Analg. 2010;111(4):1016-25.
- Birk M, Bauerfeind P, Deprez PH, et al. Removal of foreign bodies in the upper gastrointestinal tract in adults: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline. Endoscopy. 2016;48:1-8.
- Kramer RE, Lerner DG, Lin T, et al. Management of Ingested Foreign Bodies in Children: A Clinical Report of the NASPGHAN Endoscopy Committee. J Pediatr Gastroenterol Nutr. 2015;60(4):562-74.