

Tongue Ring Entrapment Within the Appendix of an Aphasic Patient Secondary to Stroke

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CASE SUMMARY

A 32 year old female admitted to the brain injury rehabilitation unit with aphasia and right sided weakness after hospitalization for left MCA stroke and superior sagittal sinus thrombosis status-post VP shunt placement. Her rehab course was complicated by acute abdominal pain secondary to a tongue ring lodged in her appendix requiring urgent appendectomy.

CASE DESCRIPTION:

Patient presented to outside facility with expressive aphagia and right sided upper and lower extremity weakness secondary to left MCA stroke. She was initially started on tPA, but it was stopped due to worsening symptoms due to hemorrhagic conversion. She was Intubated for airway protection and was emergently transferred to Mount Sinai Hospital for further management. She had multiple neurosurgical interventions after which she was successfully extubated and eventually transferred to acute inpatient rehab.

While in the unit she developed severe acute abdominal pain. Imaging workup revealed a foreign body in the right lower quadrant. After reviewing past imaging it was determined that while she was intubated, her tongue piercing was dislodged and ingested—seen previously in consecutive scout films, but missed prior to her pain incident. Treatment with laxatives and retrieval via colonoscopy had failed, and ultimately she required urgent appendectomy for removal.

REFERENCES

- Oyos; Anesthesiology 1998;88(1): p.279.
- McNeil et al. AANA J. 2008;76(1):p19-23
- Bucca et al. JAMA NetwOpen. 2020;3(7)

IMAGING

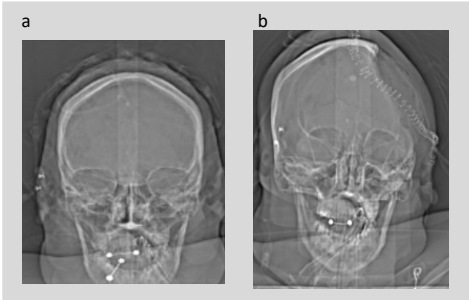


Image 1.
CT head prior to (a) and after (b) decompressive craniotomy with duroplasty. Note in "a" 4 piercings are seen, and in image "b" 3 piercings are visualized. Images were completed on the same day.

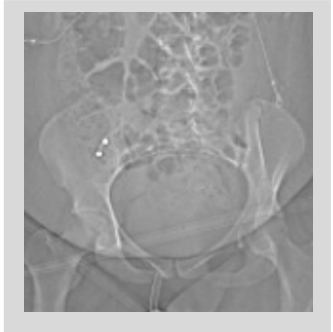


Image 2.
Abdominal CT obtained shortly before rehab admission post VP shunt placement. Read by radiology as a foreign object likely post surgical.

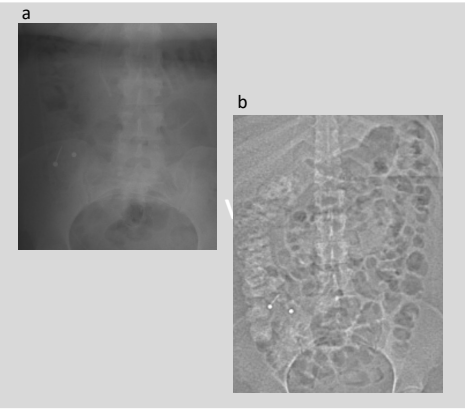


Image 3.
Imaging obtained during rehab stay as part of acute abdominal pain workup. (a) abdominal X-ray showing foreign object. (b) CT abdomen again displaying foreign object.



Image 4.
Appendix post appendectomy with foreign body intact.

Body mass index (BMI)	< 25	25 - 30	> 30
Mallampati airway classification:	I- soft palate, uvula, pillars	II- soft palate, pillars	III- soft palate
	IV- hard palate		
Mouth opening:	cm		
Dentition:	Native	prominent incisors	edentulous
		Jaw protrusion (can protrude lower incisors beyond upper incisors)	
Thyromental distance:	> 6 cm	< 6 cm	
Neck extension:	full (35°)	limited (<15°)	

Image 5.
Example of standard pre-intubation check-list .

DISCUSSION

This adverse event was directly related to an oversight in reviewing her consecutive images. When assessing her films the focus was on evaluating the progression of her neurological conditions, not the location and number of her piercings. The primary focus may have distracted from the piercing's displacement seen in previous films. Furthermore, the patient's aphasia was an obstacle to obtaining a full history. Oral piercings are not included in most standard pre-intubation checklists, nor are they typically noted on comparison films, despite their risk of displacement in intubated patients.

GUIDELINES

There have been previous case reports involving intubation of patients with oral piercings.^{1,2} Adverse events are not always reported as a direct result of keeping these piercings in place. Despite this evidence removal of oral jewelry is recommended prior to intubation.² Yet, at this time the standard pre-intubation check-list does not include oral piercings.(image 5) Research has shown that the use of airway checklists prior to intubation is not associated with better outcomes.³

CONCLUSION

There may be a benefit for oral piercings being added to pre-intubation check lists in order to prevent adverse events. In addition, special considerations should be made for aphasic patients that may have difficulty noticing or expressing a missing piercing that was there prior. Finally, in the rehabilitation setting when approaching a patient with abdominal pain it is important to review all prior imaging closely.