

PENETRATING OROPHARYNGEAL TRAUMA RESULTING IN ACUTE QUADRIPLÉGIA IN A TODDLER

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BACKGROUND

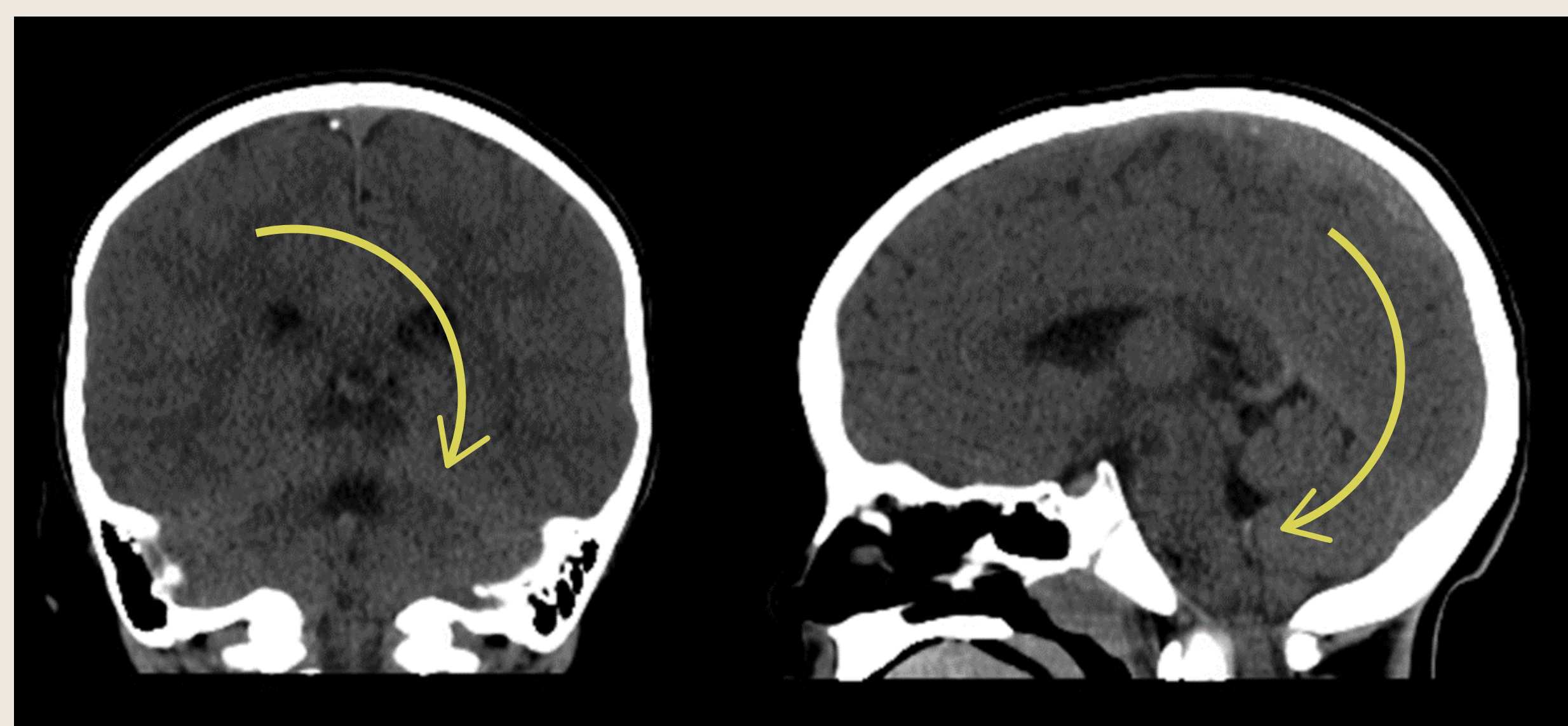
Penetrating trauma of the oropharynx is not an uncommon injury in the pediatric population. However, the extent of these injuries, as well as the sequelae that follows, differs greatly. As the case at hand will demonstrate, seemingly innocuous injuries of the oropharynx have been associated with severe neurologic sequelae.

CASE DESCRIPTION

- A previously healthy 3-year-old female fell 4 feet off the back of a couch.
- She was found on the ground, minimally responsive, but breathing, with a chopstick sticking out of her mouth.
- The mother forcefully removed the chopstick and described scant bleeding.

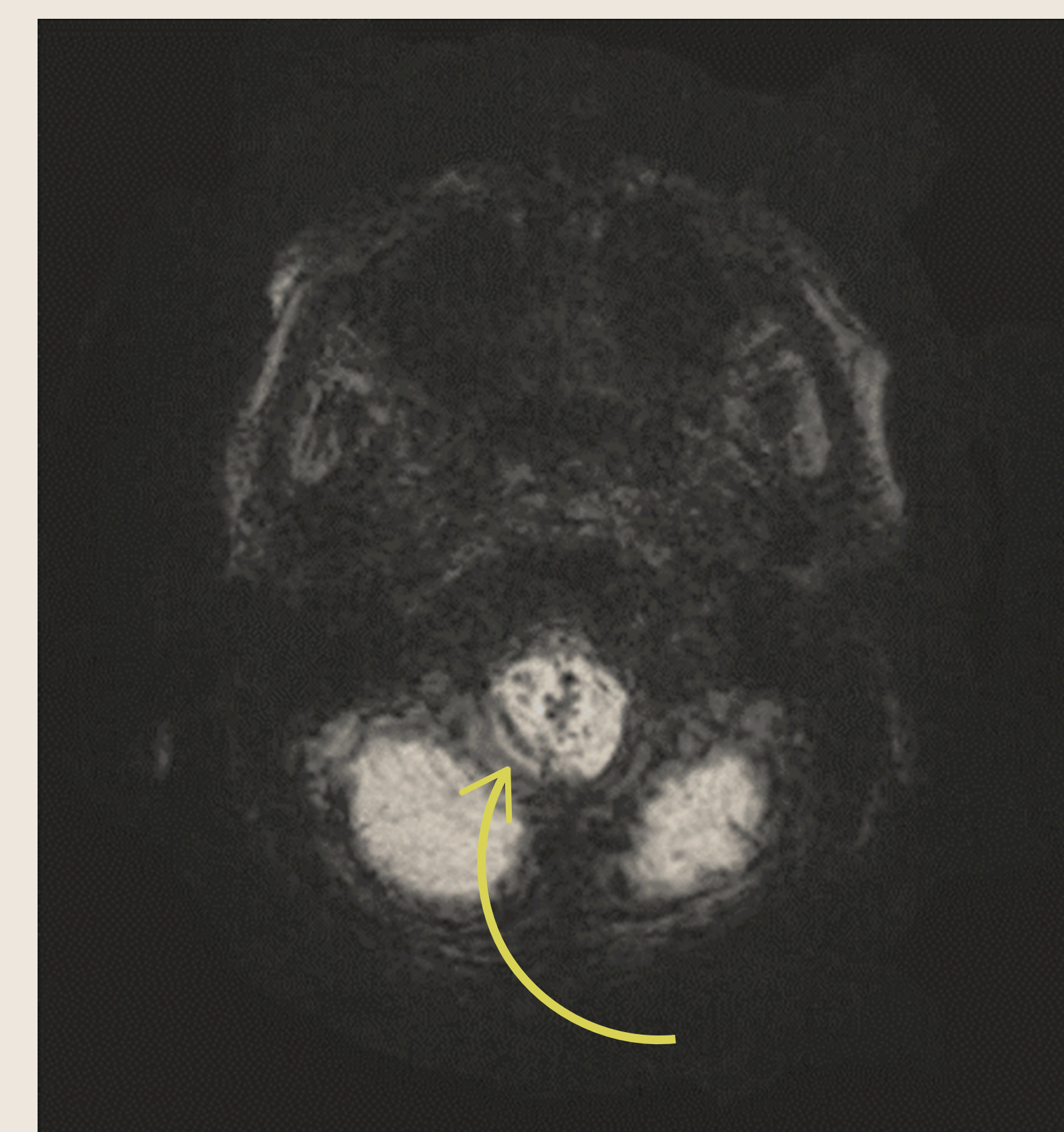
Upon Arrival to the ED

- Vitals were within normal limits. GCS 10.
- Posterior oropharynx: a small puncture wound superior to the right tonsil with no active bleeding, edema, or evidence of airway compromise.
- The patient was only responsive to noxious stimuli; she did not respond to voice and only moved her extremities secondary to pain.
- CT Head/Neck + CTA: small amount of hyperdense material in the fourth ventricle likely representing hemorrhage.
- The patient was admitted to the pediatric intensive care unit with a primary diagnosis of "head injury with possible intracranial hemorrhage."



After PICU Admission

- She developed acute quadriplegia over the following 12 hours. Subsequent MRI Brain/Spine:
 - "Small amount of hemorrhage in the fourth ventricle redemonstrated"
 - "Hemorrhagic contusion at the cervicomedullary junction with surrounding swelling and edema with diffusion restriction."
 - "Susceptibility weighted imaging (SWI) sequences showed hemosiderin deposition traveling along an oblique vector originating from the posterior oropharynx at the location of the chopstick's puncture wound."
- The patient was subsequently fitted for a cervical thoracic orthosis (CTO) to reduce movement of the spine.
- Five days postinjury she had regained partial motor function in all four extremities. Sensation in the extremities remained intact.
- She was discharged 9 days postinjury to an inpatient rehabilitation facility.



DISCUSSION & CONCLUSIONS

- Many traumatic oropharyngeal injuries in children are unwitnessed.
- Physical examination may not correlate with the development of symptoms, nor the mechanism of injury.
- Care should be taken during the examination to identify any neurological problems that may not relate to the degree of injury.
- Most impalement injuries in the oral cavity in children heal spontaneously or with minimal intervention.
- However, a small number of injuries may be deeper and more complicated than anticipated, even if the wounds appear innocuous.
- Physicians need to be more aware of the potentially life-threatening complications, as well as the specific complications related to proximity to specific anatomic structures.

RESOURCES

