Trans-oral penetrating trauma to the neck: the innocuous pen cap and the value of CT Scan

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Summary: A significant number of otorhinolaryngological emergency visits are caused by foreign bodies, and occasionally they can result in life-threatening injury. This report highlights the value of neck CT in the evaluation of suspected radiolucent foreign bodies penetrating the neck from the oral cavity. This guided the surgical approach to remove the foreign body safely without complication.

Keywords: Trans-oral penetrating injury, deep neck space, pen cap, Computer Tomography

A modified neck exploration was conducted, where the skin incision (± 3 cm) was made directly at the most pointing area. The foreign body, identified as a pen cap was removed with no complications (Figure 1c). His postoperative recovery was uneventful, and the patient was discharged 72 hours later.

Discussion

Patients with suspected foreign bodies are common in childhood otorhinolaryngological emergency departments. The majority of foreign bodies in the aerodigestive tract are either inhaled or ingested objects.¹⁻³ Palatal lacerations are a common insult due to transoral penetrating foreign bodies, especially in the paediatric population who place objects in their mouth.⁴ In the oral region, the anatomical location of the injury is generally easily identified by clinical examination without the aid of specialised radiological investigation, and removal is by direct extraction. Fatal complications of transoral penetrating foreign bodies do occur in rare cases, these include carotid trauma, or thrombosis, intracranial injuries, mediastinitis or airway obstruction.⁵⁻⁸ Similar to those earlier reported cases, our patient’s initial history accompanied by corroboration by an adult eye-witness provided a rather misleading impression as to a harmless trauma. He posed a diagnostic dilemma requiring further imaging in order to ascertain the trajectory and location of the suspected foreign body in order to undergo safe surgical removal. Given the trajectory that the pen cap had passed between the carotid artery and internal jugular vein it was particularly fortuitous that the child did not present in extremis with a vascular injury or airway compromise.
Conclusion

History or clinical examination alone may be inadequate to raise the suspicion of a retained foreign body in the deep neck spaces in the situation of trans-oral penetrating injury of the oropharyngeal cavity. Computer Tomography is valuable for the evaluation of trans-oral trauma to the oropharynx, especially because it could reveal the presence of a retained foreign body in the deep neck spaces and the proximity of vital structures, thus guiding a surgical approach and enabling safe minimally invasive removal of the foreign body. We are also alerted to the potential dangers of the innocuous pen cap.

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REFERENCES