

Digital extraction of a barbed foreign body impalement of the soft palate in a child (bedspring)

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Abstract:

Here we present the case of a 3-year-old child who fell while running with a bedspring in his hand. The bedspring was in his mouth and appeared to be impaled. The ends were barbed. When the patient appeared to become nauseous, the decision was made to attempt digital identification of the location of the bedspring. It was clear that it had impaled into the soft palate. The barb was digitally eased from the soft palate and the bedspring was removed. Impalement injuries of the oral cavity are generally associated with the preschool age group. The most common objects are sticks, pencils, straws and toothbrushes. Potential complications depend on the location of the impalement and include deep space abscesses and internal carotid thrombosis. Internal carotid thrombosis is a rare complication and is more common with lateral palate and peritonsillar injuries. However, most impalement injuries of the oral cavity in children heal spontaneously and with minimal intervention.

Keywords: impalement injury of the soft palate; digital removal barbed object from soft palate

Introduction:

Impalement injuries of the oral cavity are generally associated with the preschool age group. The most common objects are sticks, pencils, straws and toothbrushes [1]. Matsusue looked at a series of 144 pediatric palatal impalement injuries (age range 7 months to 10 years) and found that 92% were younger than 5 years of age. Over 50% occurred by falling onto an object held in the mouth. The most common object was a toothbrush (21%) and the second most common was a cylindrical toy (18%) [2].

Case Presentation:

Here we present the case of a 3-year-old child who fell while running with a bedspring in his hand. The bedspring was in his mouth and appeared to be impaled. His family had been in the process of removing a broken box spring mattress from house. He was carried into the emergency department (ED) by his father. There was no obvious bleeding from his mouth. He was placed on a stretcher in a sitting position. Initial attempts at visualization of the oropharynx were difficult due to the presence of the bedspring. The family brought an identical bedspring with them. Both ends had a small barb. No attempts had been made by the family to remove the spring. When the patient appeared to become nauseous, the decision was made to attempt digital identification of the location of the bedspring. It was clear that it had impaled into the soft palate. The barb was digitally eased from the soft palate and the bedspring was removed.

There was no active bleeding and no laceration was noted on visual inspection. The patient was transferred to a Pediatric unit and was observed for 24 hours. He was discharged in good condition and was in good health at 3 day follow up.

Discussion

In the series of 144 pediatric palatal impalement injuries by Matsusue, the soft palate was involved in 44% of cases. The hard palate was involved in 18% of cases. In this series, observation alone was sufficient in 68% of cases with surgical intervention in 31% of cases (most under local anesthesia). 8% were admitted with no complications in the series [2]. Potential complications depend on the location of the impalement and include deep space abscesses and internal carotid thrombosis [3-5].

Internal carotid thrombosis is a rare complication and is more common with lateral palate and peritonsillar injuries [6]. However, most impalement injuries of the oral cavity in children heal spontaneously and with minimal intervention [2,6,7].

Conclusions

Impalement injuries of the oral cavity are generally associated with the preschool age group. The most common objects are sticks, pencils, straws and toothbrushes. Potential complications depend on the location of the

impalement and include deep space abscesses and internal carotid thrombosis. Internal carotid thrombosis is a rare complication and is more common with lateral palate and peritonsillar injuries. However, most impalement injuries of the oral cavity in children heal spontaneously and with minimal intervention.

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