JDC CASE REPORT

# Acrylic Artificial Fingernail Embedded in the Palate of an 11-month-old: A Case Report

Jeffrey T. Johnson, DMD, MPH John R. Mink, DDS, MSD

# **ABSTRACT**

Foreign bodies found embedded in the oral cavity have been reported in the literature. The purpose of this case report was to document embedding of an acrylic artificial fingernail in the palate of an 11-month-old. As the use of artificial acrylic nails increases, this case report is also meant to alert oral health professionals as to what may become a more common occurrence. (J Dent Child 2005;72:107-108)

KEYWORDS: ACRYLIC ARTIFICIAL NAILS, ORAL CAVITY

Poreign bodies found impaled or embedded in the oral cavity have been reported in the literature. <sup>1-4</sup> Such objects include toothbrushes, plastic plugs, sticks, pens/pencils, toys, and straws. According to Hellmann et al, most impalement injuries in young children result from: (1) falling on an object carried in the mouth; (2) applying direct force to an object held in the mouth; and/or (3) falling or running into a stationary object with the mouth open. <sup>5</sup> Once the foreign body is removed, most resultant injuries heal without treatment. Perforating lesions in the hard palate requiring surgery intervention are very rare. <sup>6</sup> Described is an unusual case in which an artificial acrylic fingernail was implanted into a baby's anterior palate soft tissues.

#### CASE REPORT

An 11-month-old Caucasian female was referred to the university pediatric dental clinic from an emergency department physician for evaluation of an unidentified mass located in her anterior palate. The child's mother was uncertain as to how long the object had been in her daughter's mouth. The patient was not taking any medications and had no known drug allergies. She had no signs of obvious distress. The mother had not noted any decrease in activity or feeding levels. She also denied any history of systemic disease or illness. The patient's mother indicated that her child's immunizations were up to date.

Head and neck examination was unremarkable, except for the presence of a white, oblong-shaped mass located in the anterior soft palate (Figure 1). Palatal soft tissue immediately adjacent to the object was irritated, but there was no swelling or purulence from the site. The child was uncooperative, so palpation of the object and surrounding area was not accomplished.

In consultation with the mother, it was decided to remove the foreign body from the child's palate. Since only the terminal ends of the object were embedded in the soft tissue, no local anesthesia was administered. The object was removed with a curved hemostat. The object had been a repository for food and other debris. Therefore, the area was wiped clean with a moist 2×2 gauze. The mother helped restrain the child for the procedure. She was asked to keep the area clean and to monitor her child for any unexpected complications.

Closer scrutiny of the object revealed it to be an artificial acrylic fingernail (Figures 2 and 3). The mother was unaware of how her daughter may have come into contact with the fingernail. No follow-up appointment was required.



Figure 1. Oblong-shaped mass located in the child's anterior soft palate.

Dr. Johnson is assistant professor and program director and Dr. Mink is professor and acting chief, Division of Pediatric Dentistry, Department of Oral Health Science, University of Kentucky College of Dentistry, Lexington, Ky. Correspond with Dr. Johnson at jjohn5@email.eky.edu





Figure 2.

Figure 3.

## **DISCUSSION**

While many objects, including pistachio nutshells, <sup>7</sup> have been found embedded in the oral cavity of children, a literature review found only one prior description about artificial acrylic nails. In a letter to the editor of *Pediatrics*, a similar case was detailed. <sup>8</sup> A study by Linden et al <sup>9</sup> detailed the hazards related to corrosive injuries from artificial nail primers.

This case report offers photographic documentation of potential oral-related dangers of artificial acrylic nails. This case report is also meant to alert oral health professionals about what may become a more common occurrence.

### **REFERENCES**

- 1. Takenoshita Y, et al. Impalement injuries of the oral cavity in children. J Dent Child 1996;63:181-184.
- 2. Oza N, Agrawal K, Panda KN. An unusual mode of injury-implantation of a broken toothbrush me dial to ramus: Report of a case. J Dent Child 2002;69:193-195, 125.
- 3. de Jong AL, et al. Foreign bodies of the hard palate. Int J Pediatr Otorhinolaryngol 1998;43:27-31.
- 4. Akbas H, et al. A plastic plug embedded in the hard palate of an infant. Plast Reconstr Surg 1998;102:1762-1764.
- 5. Hellmann JR, Shott SR, Gootee MJ. Impalement injuries of the palate in children: Review of 131 cases. Int J Pediatr Otorhinolaryngol 1993;26:157-163.
- von Domarus H, Poeschel W. Impalement injuries of the palate. Plast Reconstr Surg 1983;72:656-658.
- 7. Sobol SE, et al. Pistachio nutshell foreign body of the oral cavity in two children. Int J Pediatr Otorhinolaryngol 2004;68:1101-1104.
- 8. Vogeley E, Danger of artificial nails. Pediatrics 1999:104:132.
- 9. Linden CH, et al. Corrosive injury from methacrylic acid in artificial nail primers: Another hazard fin gernail products. Pediatrics 1998;102:979-984.