

PREVENTION AND MANAGEMENT OF ASPIRATION AND INGESTION OF FOREIGN BODIES IN PEDIATRIC DENTISTRY : case reports



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Introduction

Foreign body aspiration or ingestion is a potential complication during routine dental treatment. Aspiration and ingestion of foreign bodies of dental origin during treatment may cause gastrointestinal and airway obstruction or perforation, and may constitute a life-threatening situation. Regardless of incidence, foreign body ingestion or aspiration episodes are recognized as potential complications in the specialty of pediatric dentistry. Dentists must be able to prevent and manage emergency situations in which patients accidentally swallow dental instruments or materials during treatment and procedures.

Case 1

Age/Sex 7Y / M

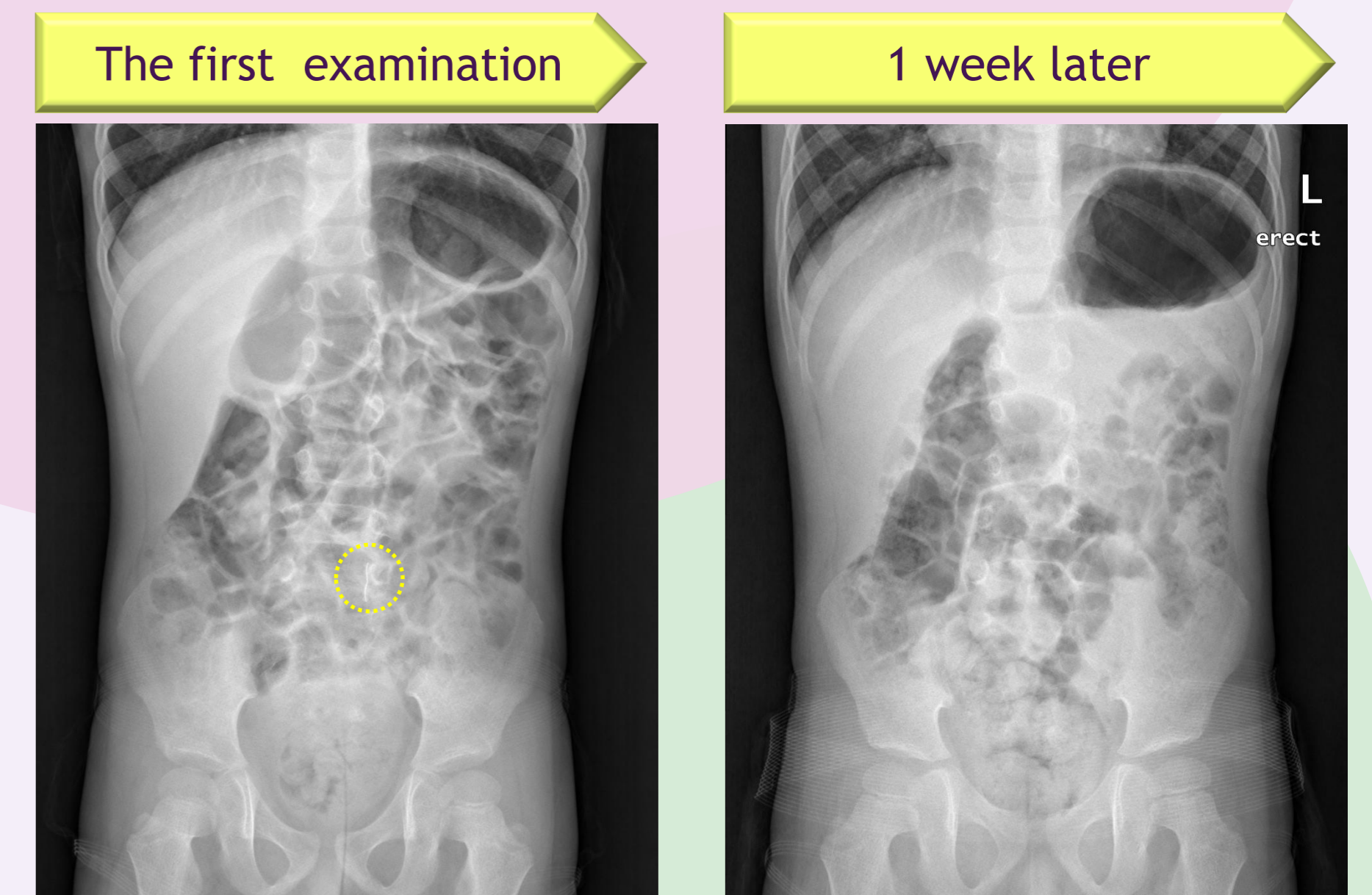
C/C Lateral luxation on #21

PMH Intellectual disability, ataxic cerebral palsy

P/I An 1.5cm twisted wire for resin wire splint had slipped from the dentist's fingers and fallen into the posterior region of the oral cavity, following which it had been swallowed. He was immediately referred to the Wonkwang University emergency hospital for further evaluation and management.

R/E X-ray of the abdomen showed that the swallowed twisted wire was located in the upper abdomen with no associated features of perforation or peritonitis.

F/U 1 week later, non-specific finding radiographically



Case 2

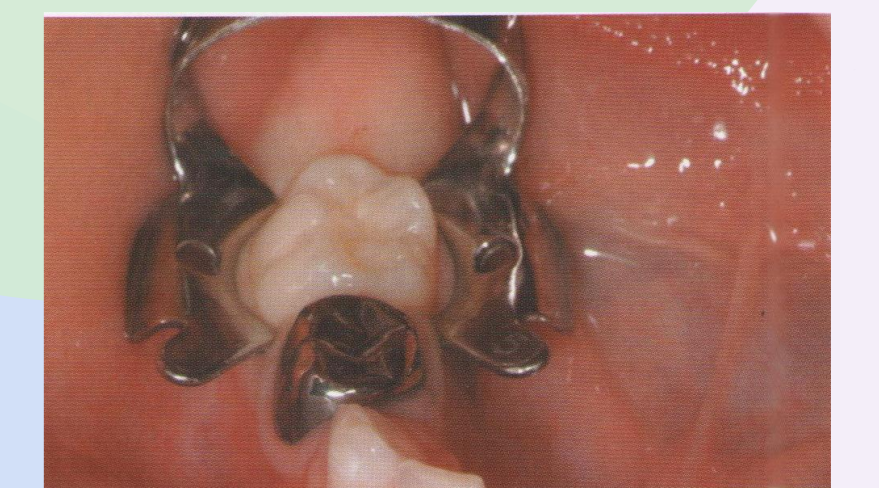
Age/Sex 6Y / F

C/C Caries of dentin on #26,36,46

PMH N.S

P/I A clamp #14A was tried on the mandibular left first molar before the rubber dam was placed to ascertain that the clamp could be securely seated and would not be easily dislodged by the probing tongue, lip, or cheek musculature. The clamp had slipped from the clamp forcep and fallen into the posterior region of the oral cavity, following which it had been aspirated. The patient threw up the aspirated object by coughing.

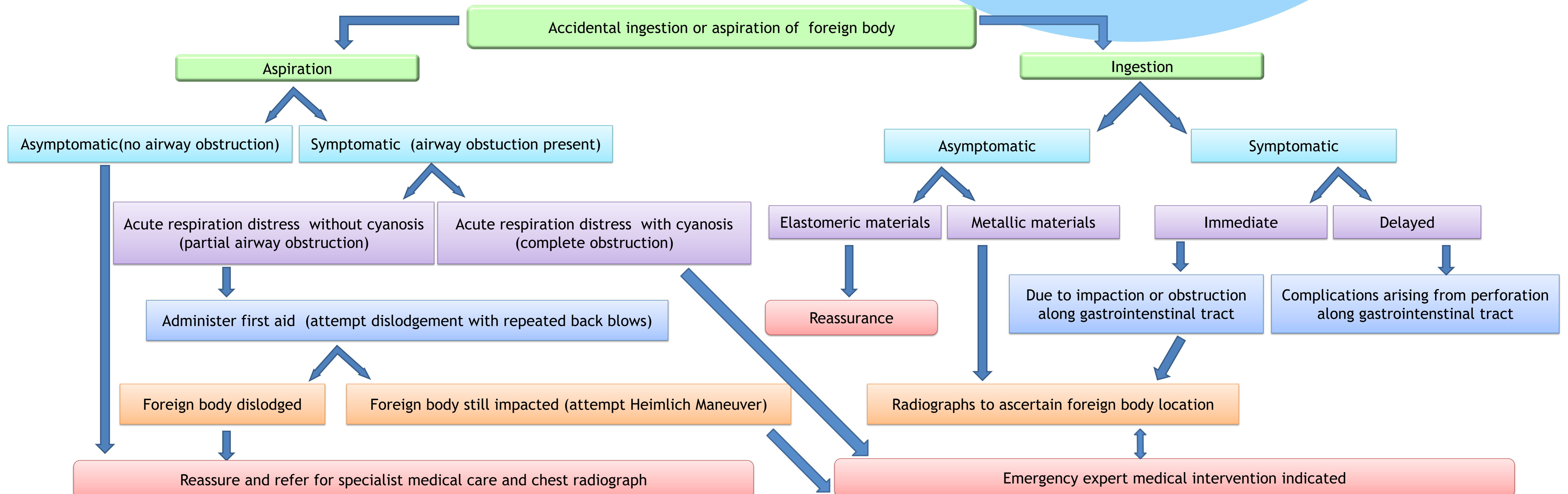
F/U Next day, the patient reported no discomfort.



Prevention

1. Use of textured latex gloves may help improve grip on instruments and dental components.
2. Pedodontists encourage the use of a rubber dam during dental procedures, both for prevention of ingestion or aspiration as well as for reducing stress arising from safety concerns and improved infection control.
3. A technique using dental floss that is instantly glued to fixed restorations or knotted to bands or clamps has been shown to be simple and cost effective.
4. Practitioners can make patients aware of the possibility of dental objects dropping in such cases, and instruct them to spit out any dropped objects.
5. There is a need to organize smooth support and cooperative procedures that can be implemented promptly if accidental ingestion or aspiration occurs.
6. Every pedodontist must undergo a basic life support and first-aid skills course.

Management of ingestion or aspiration



Summary

To summarize, accidental ingestion is more common than aspiration, and usually does not cause any clinical signs or symptoms, most of the foreign objects being egested after passage through the gastrointestinal tract without complications. Conscientious patient selection, meticulous adherence to clinical procedures, periodic inspection of instruments and appliances for wear and timely replacement if warranted, appropriate use of high-volume suction during high-risk procedures, as well as proper patient education are all vital factors in prevention. If an emergency situation does arise, the clinician must be capable of recognizing and managing it early and effectively so that patient discomfort and morbidity may be kept minimal.