Kindlicher Atemwegsnotfall

Fallvorstellung

Atm. Spenner
Helios Klinikum Erfurt

Dez. 2010, 9:08 Uhr

Einsatzmeldung:
1 jähriges Kind mit Luftnot, Sekundenkleberaspiration

Kindlicher Atemwegsnotfall

Kleinkind mit verklebten Atemwegen:
Meine Gedanken


Schnelles Eingreifen - mit den Fingern
Ggf. Koniotomie

Kindlicher Atemwegsnotfall

Die Situation vor Ort
Was war geschehen?
Transport ins KH

CASE REPORT
Accidental cyanoacrylate glue ingestion
Taner Yılmaz, Gonca Yılmaz

Hacettepe University Faculty of Medicine, Department of Otolaryngology-Head and Neck Surgery, Hacettepe, 06100 Ankara, Turkey
Dr. Sami Ulus Children’s Hospital, 06100 Ankara, Turkey

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KEYWORDS
Cyanoacrylates; Toxicity; Swallowing; Poisoning

Summary
Cyanoacrylates have a variety of medical and commercial applications as adhesives. They are commonly found as glue in the household. They can be swallowed accidentally by children. However, no case was reported so far in the English medical literature. Their effect on the mouth, pharynx, larynx, esophagus and the rest of gastrointestinal system is unknown. Here we report our own child who accidentally ingested cyanoacrylate glue without unwanted sequelae due to prompt intervention.

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* Corresponding author. Tel.: +90 312 3104111; fax: +90 312 3113500.
E-mail address: tyilmaz@hacettepe.edu.tr (T. Yılmaz).

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Case report

A 19-month-old toddler was witnessed ingesting a cyanoacrylate "super glue" late product, ZAP CA (pink label) by Pacer Technologies late (Fig. 1), used by her father to build model cars. The volume

Aspiration; Cyanoacrylate; Toxicity

Keywords

CHRISTOPHER VITALE1, MATHEW GEORGE1, ADINA SHEROFF1, CHRISTINA HERNON2, and EDWARD BOYER3

Tracheal and bronchial obstruction following cyanoacrylate aspiration in a toddler

Introduction

Several cyanoacrylate adhesives are available commer-

Cyanoacrylates are a common class of household substances used as adhesives and are commonly sold under brand names

Aspiration of these products is a poorly described clinical entity.

Conclusion.

Aspiration of these products is a rare but potentially life-threatening exposure. Management centers upon supportive care and consideration of rigid bronchoscopy for removal of adherent glue.

We are reporting a case of accidental cyanoacrylate adhesive aspiration by a toddler.

A toddler ingested a low-viscosity cyanoacrylate product and developed respiratory distress (Fig. 1). A 34-month-old female was playing with her father's model cars when she consumed a small packet of ZAP CA adhesive. The child's mother witnessed her taking the packet and immediately brought her to the emergency department. The child was alert, oriented, and cooperative. Examination was unremarkable except for mild respiratory distress and a weak cry. Her oxygen saturation dropped to 92% on room air. She was intubated and ventilated; despite adequate ventilation, her oxygen saturation continued to drop. Vital signs on presentation included a heart rate of 204 beats per minute, blood pressure of 96/36 mmHg, and respiratory rate of 42 breaths per minute. Chest x-ray revealed a large foreign body lodgment. The child was taken to the operating room for rigid bronchoscopy. Multiple pieces of glue were removed from both mainstem bronchi. The child made a full recovery after a 10-day hospital stay.

Discussion

Cyanoacrylate ester polymers are hard, glassy resins that exhibit excellent adhesion to a variety of materials. They are comprised of monomers that are reactive double bonds, which accounts for both their fast cure rate and their ability to adhere to a wide variety of surface structures. The liquid monomers polymerize via an anionic mechanism when brought into contact with any basic surface. The presence of weakly basic surface moisture is adequate to initiate the polymerization reaction. The presence of moisture and protein in the skin (1) base monomers are of such low viscosity that they are often used in an array of household applications. They can be used in model car construction. In addition to describing our experience, we propose a protocol for the management of cyanoacrylate aspiration.

Cave: Sekundenkleber sind nicht röntgendicht!