

Case Report

Open Access, Volume - 3

Oral mucosal burn in a neonate due to accidental wart medicine intake

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Received Date : Jan 25, 2023
Accepted Date : Feb 18, 2023
Published Date : Feb 21, 2023
Archived : www.jcmimagescasereports.org
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Abstract

Caustic ingestion is a problem frequently encountered in children younger than five years of age and mostly in developing countries. It may result in esophageal, laryngeal, oropharyngeal and oral lesions. An 18 day-old-girl brought to emergency room because she was mistakenly given her father's wart medicine instead of her daily vitamin D medicine. There were severe hyperemia and erosions at her lips, oral mucosa and oropharynx. Her oral nutrition was stopped and intravenous proton pump inhibitor drug has initiated. There were no evidence of gastrointestinal perforation at her abdomen X-ray. Her laboratory test results were completely normal. Endoscopic evaluation was not planned at early period because of her severe oral mucosal lesions. She received intravenous methylprednisolone for three days. An esophagogastroduodenoscopy was performed on day seven and reported to be normal. She has fully recovered without any sequelae. In this article, incorrect drug use and caustic exposure which are one of the most common household accidents were discussed over a newborn case.

Keywords: Caustic, newborn, mucosal burn

Introduction

Caustic exposure is more common in children than adults, it usually happens accidentally, and seen more often in developing countries and people with low socioeconomic status [1,2]. The risk is increased in children younger than five years of age, especially living in unsafe environment (caustics in unlabeled bottles, drugs within reach, etc) [3].

Caustic ingestion may cause esophageal, laryngeal, oropharyngeal and oral lesions [4]. It may cause mild mucosal damage as well as severe esophageal damage and even perforation and death [3]. In this article, incorrect drug use and caustic exposure which are one of the most common household accidents were discussed over a newborn case.

Case

An 18 day-old-girl brought to emergency room because she was mistakenly given her father's wart medicine, containing salicylic acid and 5-fluorouracil, instead of her daily vitamin D medicine. There were severe hyperemia and erosions at her lips, oral mucosa and oropharynx (**Figure 1**). She was restless. Her oral nutrition was stopped and intravenous hydration and proton pump inhibitor drug therapy has initiated. An abdominal radiograph was performed to evaluate esophageal

perforation in which there were no sign of perforation. There were laboratory test results were completely normal. She vomited once through her admission at emergency room. She was admitted to pediatric surgery clinic. Endoscopic evaluation was not planned at early period because of her severe oral mucosal lesions. She did not receive oral nutrition for three days; on the first day she was given intravenous hydration and following two days total parenteral nutrition. She received intravenous methylprednisolone for three days. An esophagogastroduodenoscopy was performed on day seven and reported to be normal. She has fully recovered without any sequelae.



Figure 1: The oral mucosal lesions of the patient.

Citation: Selin Akyüz Oktay. Oral mucosal burn in a neonate due to accidental wart medicine intake. *J Clin Med Img Case Rep.* 2023; 3(1): 1378.

Discussion

Accidental drug intake and caustic exposure is seen mostly in pediatric age especially in children younger than five years of age. Every year in United States, about 500.000 children are admitted because of toxic substance intake and 5000-150.000 child and adult are reported for toxic exposure [5].

Salicylic acid is one of the most frequently used molecule as analgesic, antipyretic, anti-inflammatory drug. Furthermore, it is also used topically for its keratolytic, bacteriostatic and fungicidal effects [5]. The mechanism of corrosive damage of topical salicylic acid is not clear but it is known that there is positive correlation between the length of exposure and the severity of damage. The damage represents as coagulation necrosis and it recovers through granulation and fibrosis which cause strictures in 2-38% of the patients [5]. We figured the lesions of our case was limited to oral and oropharyngeal mucosa due to low amount of salicylic acid intake.

Examining the case reports in literature with caustic exposure, it has been seen that only a few newborn cases were affected and the youngest case reported with caustic damage due to wart medication was our case. There were neonates reported with caustic damage due to other causes that developed esophageal strictures, required repetitive surgeries and resulted in fatal outcomes [1,5,6].

Although the opinion that corticosteroids are protective from developing strictures is controversial, there are several studies recommending its use [1,7]. Our case has received methylprednisolone for three days in order to prevent strictures.

The majority of the studies in literature recommended esophagoscopy to be performed in the first 48 hours after caustic intake. However they also suggested it could be postponed in patients with severe oral mucosal burns [8]. In our case, esophagoscopy did not performed in the first 48 hours due to her severe oral mucosal burns but she evaluated through esophagogastroduodenoscopy before discharging from the clinic.

Corrosive substance intake is a problem mostly effects children younger than five years of age and especially in developing countries. It is an important public health issue considering its frequency and complications. Parents should be informed about how to use the drugs and warned about that they should read the label of the drug every time it is used and they should keep them somewhere children can not reach. Not only the drugs prescribed to children but also those prescribed to parents might harm children as it is seen in our case. Additionally, along with drugs, detergents, degreasers etc. should also be kept away from children's reach and they shouldn't be stored in water bottles or glasses since they could easily be mistaken with drinkable liquids.

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