IMAGES IN PAEDIATRICS

The larynx and caustic soda ingestion

CASE REPORT

A previously well 16-month-old boy presented with severe stridor after ingestion of an unknown amount of granular caustic soda. The substance containing sodium hydroxide and sodium carbonate, bought for £1 two days before was left within reach in a bathroom. He was intubated and transferred to our paediatric intensive care unit. On examination, his lips were burnt with necrotic epithelium in the inside of the mouth and tongue and there were corrosive splashes suprapubically and on the dorsum of the penis. Endoscopy showed erythema and deep ulceration from the mouth to the first part of the duodenum. Laryngoscopy 2 days later revealed a white, charred and stiff epiglottis with relative sparing of the anterior two-thirds of the vocal cords. The repeat laryngoscopy 1 week later, which is shown in the photograph, showed a total loss of the vocal cords and denuded epiglottic cartilage.

Management was with ventilatory support via tracheostomy, sedation, analgesia and prolonged parenteral feeding until the re-establishment of gastric feeding.

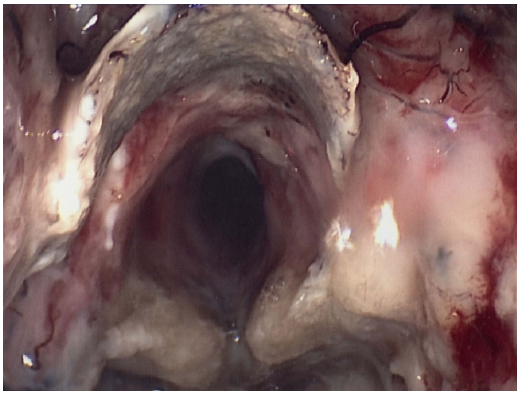

Figure 1 Total loss of the vocal cords and denuded epiglottic cartilage.

DISCUSSION

The introduction of child safety lids for containers greatly reduces the incidence of accidental poisoning[1] but, when accessible, caustic soda products are relatively tasteless and odourless allowing larger amounts to be ingested accidentally.[2] Bases cause saponification and liquefactive necrosis allowing deeper tissue penetration than acidic substances.[3] Life-changing tissue injury occurs within seconds, and neutralising agents, by releasing heat, may exacerbate the acute injury. Laryngeal destruction may occur, and where colonic interposition is not obligatory, repeated oesophageal dilations may be needed for decades (figure 1).

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