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Caustic skin burn caused by sodium hydroxide

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DESCRIPTION

A 75-year-old, previously healthy, woman presented to the emergency room with bilateral hand wounds. Her medical history revealed the use of a sodium hydroxide (NaOH)—impregnated swab without gloves for approximately 2–3 h. Within several hours she felt a burning sensation and noticed significant hyperaemia and blisters over her left interdigitals and her right tenar eminence and fingertips. The next day her complaints aggravated

and she developed several wounds over the affected areas. On examination she had a significant dry, necrotic, eschar-covered full-thickness ulcer over her right tenar eminence and several other dry necrotic wounds on the described locations (figure 1). Her arterial pulses were palpable and the Doppler ultrasonography examination revealed normal blood flow.

NaOH, often called 'caustic soda', is a strong alkali frequently used in a variety of industries and also in domestic environments as a cleaning agent. Unlike acid burns, which are usually self-limiting and more superficial, caustic soda burns result in deep-liquefactive necrosis and are a cause of significant morbidity due to their late presentation.¹ Early recognition and prompt management consisting of copious and prolonged wound irrigation is the mainstay of treatment.² Following initial management, these patients usually require a surgical debridement and grafting or conservative wound care until complete epithelialisation. Our patient was lost to follow-up after she was referred to the plastic and reconstructive surgery department. This case illustrates the detrimental effects of NaOH content cleaning solutions. Extreme care should be taken when handling caustic chemicals, either by wearing protecting gloves or preferably by using less-irritating cleaning agents.

Figure 1 Dry, necrotic, eschar-covered full-thickness ulcer over right tenar eminence.

Learning points

- ▶ Extreme care should be used when handling caustic chemicals.
- ▶ Immediate medical assistance should be called, in case of any caustic chemical contact.

Competing interests None.

Patient consent Obtained.

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