

Black urine after medicinal foot baths

Liong Rung Liu, Ming-Yuan Huang, Shu-Tien Huang

Emergency Department,
Mackay Memorial Hospital,
Taipei, Taiwan

Correspondence to
Dr Liong Rung Liu,
liulrh31@hotmail.com

DESCRIPTION

A 61-year-old man, without previous disease was admitted to our emergency department (ED) due to syncope at home after soaking his feet in a solution containing 50% of saponated cresol. On physical examination, the patient was lethargic with a strong medicinal smell and brownish discolouration with bullae formation of his bilateral feet (figure 1A), and with otherwise normal vital signs. According to the family, the patient has the habit of soaking his feet in cresol-soap antiseptic solutions with the belief that it will cure his athlete's foot. This occurred with a frequency of three times a week at a time over half-year. However, prior to this admission to ED, he was unaware of a prolonged soaking time (approximately 5–6h) due to a depressed conscious level. Laboratory evaluation was significantly for the presence of dark urine, and which was progressively cleared over an 8 h period (figure 1B). Urine level of p-cresol, m-cresol and phenol in this patient were 2608, 5391 and 156 mg/g creatine respectively, at 1 h postexposure. The diagnosis of cresol intoxication was established. Skin contact with cresol can result in chemical burns, while chronic exposure may cause dark skin discolouration. Following dermal absorption, cresols undergo oxidative metabolism in the liver and are further degraded to dark-coloured substances, which are rapidly eliminated in the urine. Management of cresol poisoning

generally includes decontamination and supportive care.¹ This patient developed no systemic toxicity after the dermal exposure of cresol and was discharged without any sequelae.

Learning points

- ▶ Dermal contact with cresol could also result in systemic poisoning.
- ▶ Recognition of characteristic 'black urine' in primary care settings may assist in the diagnosis of cresol poisoning.
- ▶ There is no specific antidote for cresol poisoning and the management principle is decontamination and supportive care.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCE

- 1 Christiansen RG, Klamon JS, Successful treatment of phenol poisoning with charcoal hemoperfusion. *Vet Hum Toxicol* 1996;38:27–8.

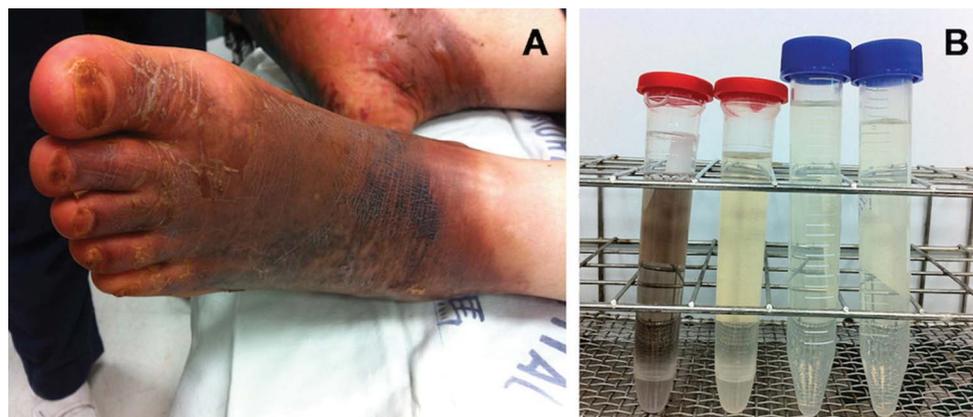


Figure 1 (A) Skin discolouration after foot baths in cresol-soap solutions. (B) Urine colour after the foot baths from black to colourless in 8 h time.

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