

Letters to the editor

Methaemoglobinaemia as a result of sodium nitrate poisoning

Sir

We report a case of methaemoglobinaemia as a result of sodium nitrite poisoning. Early recognition and administration of the specific antidote methylene blue may lead to complete recovery.

A 39-year-old man ingested 100 ml of a liquid he believed to be beer. On arrival in our department he was deeply cyanosed and unconscious with a pulse of 140 and a blood pressure of 70 systolic. Endotracheal intubation and ventilation with 100% oxygen failed to improve the cyanosis and a clinical diagnosis of methaemoglobinaemia was made. Despite intravenous methylene blue he developed an asystolic cardiac arrest from which he could not be resuscitated. Subsequent analysis of the ingested fluid showed it to contain 33.5% sodium nitrite.

Sodium nitrite is used in industry during the manufacture of dyes and synthetics, and is also used in low concentrations as a meat preservative. There are reports of nitrite poisoning due to its excessive use as a meat preservative (Walley *et al.*, 1987) or as a result of mistaking sodium nitrite for table salt (McQuiston 1936). Abuse of organic nitrites by ingestion or inhalation for their psychodelic and stimulant properties may also lead to methaemoglobinaemia (Shesser *et al.*, 1981).

Small doses of sodium nitrite may produce headache, vomiting, diarrhoea, flushing and cyanosis. Ingestion of more than 1 g of sodium nitrite leads to rapid cardiovascular collapse and death (Polson *et al.*, 1969). Typically, samples of the patients blood are dark brown and confirmation of the diagnosis is obtained by measuring serum methaemoglobin levels.

Treatment of nitrite poisoning consists of the administration of high concentrations of oxygen and methylene blue intravenously in a dose of 1–2 mg kg⁻¹ body weight. Methylene blue acts by promoting reduction of the oxidized haem iron back to its ferrous state (Polson *et al.*, 1969).

Nitrite poisoning and methaemoglobinaemia are rare, however awareness of this condition in the cyanosed patient unresponsive to oxygenation and early administration of methylene blue may be life saving. It is recommended that methylene blue is available in Accident and Emergency A&E units for use in such cases.

Yours Faithfully,

J. K. GOSNOLD & G. S. JOHNSON
Accident & Emergency Department,
Hull Royal Infirmary,
Anlaby Road,
Hull

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Forced hyperextension to the wrist

Sir

A new pastime entitled 'Mercy' has come to our attention following the attendance of a 21-year-old student to the Accident and Emergency (A&E) department. The aim of this game is to inflict pain on the participating opponent by forced hyperextension to the wrist until they cry 'mercy'. Unfortunately, this young man sustained an undisplaced oblique fracture of the mid shaft of the third metacarpal whilst playing the game with his girlfriend.

Do any readers have experience of other such 'mercy' inflicted fractures?

A. DANCOCKS & L. THEAN
Accident and Emergency Department,
Leicester Royal Infirmary,
Leicester

X-rays as a diagnostic aid in winged scapula

Sir

Winging of the scapula is a well-described clinical entity, with a variety of possible causes. A recent case of winged scapula is described in which an X-ray allowed the correct diagnosis to be made in the absence of any obvious clinical clues. As winging of the scapula is usually attributed to neurological causes on clinical grounds, potentially surgically treatable bony lesions responsible for winging may be under-recognized.

A 34-year-old male amateur golfer attended the accident and emergency (A&E) department with left (non-dominant) shoulder pain. This pain developed suddenly following a stroke with a golf club 3 days previously. He did not recall any direct impact to the shoulder. On returning home his wife commented on obvious prominence of his left scapula. He denied any previous symptoms related to either shoulder. He was otherwise in good health.

On examination, obvious winging of the left scapula was observed. This winging was present even with the left arm held by the side but became more obvious on pushing forwards against a wall. There was a full range of pain-free movement in the left shoulder. An X-ray was obtained by a process of default, as there was no history of direct trauma and no local bruising or mass was discernible. The X-rays