

RECURRENT TETANUS

A recent case report in *The Lancet* describes recurrent tetanus. A 64-year-old woman presented to the emergency department of a southern English town with a stiff painful jaw. She had grazed her forearm while gardening 2 days earlier. Within a few hours she developed trismus, risus sardonicus and painful muscle spasms. The authors made a clinical diagnosis of tetanus and started high-dose intravenous tetanus immunoglobulin and metronidazole. They debrided the wound. Anaerobic culture of the wound swabs grew *Clostridium tetani*. Eventually, the patient's spasms became uncontrollable and she was sedated, paralysed and intubated. She was mechanically ventilated for 17 days, developing ventilator-associated pneumonia and autonomic instability requiring inotropes to maintain her blood pressure. A magnesium infusion was started, as muscle spasms were consistently worse if her magnesium fell below 1.5 mmol/l. Painful muscular spasms continued for weeks after extubation and were controlled by larger-than-normal magnesium levels for a further 9 days. Muscle spasms were then controlled using baclofen. Spasms are caused by the exotoxin tetanospasmin, which is taken up and transported by motor neurones and affects the response of skeletal muscle, the spinal cord and the brain to stimuli. Standard treatment of tetanus includes benzodiazepines, opiates and vasoactive drugs to help reduce pain, muscle spasms and autonomic instability. A pilot study of 8 patients with tetanus showed that all who were initially given high-dose magnesium did not subsequently require ventilation.

Apparently the patient recognised that she had tetanus early in the disease because 47 years earlier, at the age of 17, she

had previously contracted it. She had not had a primary immunisation course, but was given a tetanus toxoid booster at the age of 33. She developed pain and massive inflammation at the injection site, was told that she was allergic to the toxoid, and should not have further tetanus immunisations. After she had made a full recovery from this episode of tetanus, the authors gave her two tetanus toxoid injections. One caused minor local inflammation and the other caused no adverse reaction. Tetanus toxoid is a poor immunogen, and as the authors point out, this case shows that even previous infection does not guarantee immunity. They state that all patients who have contracted tetanus should be fully immunised after recovery with a primary series of 3 toxoid doses and boosters every 10 years thereafter.

Importantly, the authors note that a local reaction to a tetanus toxoid does not imply immunity to tetanus and should not deter further immunisations. The patient's reaction is often caused by the adjuvant, preservative or other immunogens such as diphtheria, and rechallenge has been shown to be safe. In developed countries, tetanus has become a disease of the elderly and debilitated as younger people are likely to be immunised.

Lindley-Jone M, et al. *Lancet* 2004; **363**: 2048.

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SINGLE SUTURE

INDIA JOINS THE ANTISMOKING LOBBY

India has joined many other countries in banning smoking in public places through a new anti-smoking act. The law also stops tobacco product advertising. However, the fine for breaking the law is low, at 200 rupees (US\$4.50). The ban is mainly to try to protect children and prevent them from smoking. Observers are cautious about the new law's potential efficacy, saying that it will be hard to enforce.

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