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Lesson of the Week

Streptococcus pyogenes: a forgotten occupational hazard in the mortuary

P M HAWKEY, S J PEDLER, P J SOUTHALL

We report on an accidentally acquired, serious infection with *Streptococcus pyogenes* in a previously healthy mortuary technician.

Case report

A 25-year-old man presented at 3 am to an accident and emergency department complaining of a painful right index finger and of feeling increasingly unwell. The finger was oedematous, and there was extensive cellulitis up to the mid forearm. He was not clinically shocked, but was pyrexial (39.5°C). He had sustained a superficial nick in the skin of the right index finger while assisting at a necropsy examination of a 73-year-old woman who had died from septicaemia caused by *Str pyogenes* (β-haemolytic streptococcus of Lancefield's group A of M type 1, T type 1) 36 hours earlier. She had been treated with erythromycin. The injury was minor enough to be forgotten until clinical signs of infection developed. He had had no previous episodes of sepsis nor was there evidence of immunodeficiency, and the physical examination was otherwise normal.

He was treated with intravenous benzylpenicillin and flucloxacillin, and over the next 24 hours the cellulitis and the pyrexia subsided. The finger tip, however, became necrotic, requiring exploration and debridement. Culture of the tissue yielded a heavy growth of *Str pyogenes* M type 1, T type 1. Blood cultures taken on admission were sterile on subculture at seven days. Subsequently the patient's finger was amputated through the middle phalanx.

Discussion

Kolletschka, professor of medical jurisprudence at Vienna, died of streptococcal septicaemia in 1847. His finger had been pricked by a maladroit medical student during a necropsy on a victim of puerperal fever. This event led his close friend Semmelweis to recognise the mode of transmission of puerperal

Serious infection associated with "needle-stab" injuries may be caused by *Streptococcus pyogenes*.

fever.¹ Until the introduction of sulphonamides in 1936 this type of infection was not uncommon as a cause of death among medical personnel.² Outbreaks of infection with *Str pyogenes* associated with contaminated vaccine have shown that only a very small amount of infected material is needed to cause fatal infections.³ Although infections caused by *Str pyogenes* usually respond to treatment with penicillin, to which the bacteria are invariably sensitive in vitro, the speed with which they may progress to cause death should never be forgotten. Perhaps in recent times concern with the risk of acquiring serum hepatitis has led us to forget the bacterial infections that may follow "needle-stab" injuries.

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Correction

Non-surgical management of peripheral vascular disease: a review

In the article by Mr C A C Clyne (20 September, p 794) the headings of the first two columns of table I ("Proprietary name" and "Registered name") should be transposed.

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