

ASCENDING CELLULITIS AFTER AN INSECT BITE

A recent case report in *The Lancet* shows that not all insect bites are harmless. Hortense Slevogt and colleagues from the Department of Medicine, Humboldt University in Berlin, report on a 51-year-old man who they admitted in September 1999. He arrived in hospital 5 days after developing a painful, purulent, nodular lesion with central necrosis and marked surrounding erythematous swelling on his right ankle. The lesion occurred at the site of a recent insect bite. It had increased in size and he had developed tender nodules along the lymphatic chain of his right leg, with erythema of the surrounding tissue and non-fluctuant, painful lymphadenopathy in his groin. His temperature was raised but he had no other signs of systemic involvement. He was thought to have cellulitis and treatment was started with amoxicillin and clavulanic acid.

After 4 days, the lesion was surgically debrided. Gram stain of the purulent exudate showed neutrophils and Gram-positive branched filamentous rods compatible with *Nocardia* or *Actinomyces*. Primary cutaneous nocardiosis was suspected and he was treated with trimethoprim-sulphamethoxazole. The diagnosis was confirmed 10 days later, when pus cultures grew *Nocardia* spp. There was no evidence of impaired cell-mediated immunity. Within 2 weeks, the patient improved, and was discharged. He was treated with trimethoprim and sulphamethoxazole for a further 10 weeks and the lesion resolved completely.

The patient had primary cutaneous nocardiosis. Soft-tissue infections due to *Nocardia* are rare in immunocompetent patients. *N. brasiliensis* and *N. asteroides* are the most commonly recognised pathogenic species and are found world-wide in the soil. *N. asteroides* is primarily an opportunistic pathogen in patients with impaired cell-mediated immunity. The severity of infection ranges from self-limiting lung infection to aggressive infections that disseminate via the bloodstream. *N. brasiliensis* causes mainly cutaneous and adjacent tissue infections after percutaneous inoculation by minor trauma in immunocompetent patients. The clinical presentation of primary cutaneous nocardiosis can also be nonspecific, ranging from cellulitis, pustule and abscess formation to pyoderma. The lesions can be indistinguishable from lesions caused by common pyogenic organisms such as staphylococci or streptococci. The condition can resolve spontaneously or need surgical treatment. In many cases antibiotic treatment is started without Gram stain being

done. However, serious disseminated systemic disease secondary to skin involvement has been reported. Culture of *Nocardia* is difficult because they are slow-growing and colonies can take weeks to develop. This can lead to premature disposal of samples and missed diagnosis. The true incidence of soft-tissue infections due to *Nocardia* in immunocompetent patients is not known, but there are many reported cases from around the world.

Slevogt H, et al. *Lancet* 2003; **357**: 768.

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SINGLE SUTURE

OUT OF AFRICA

African populations are more genetically diverse than those in other countries, which corroborates the prediction that all races are derived from a founder one in Africa. Subsequent migration has spread populations across the rest of the globe, and because only small groups of individuals are thought to have moved out of Africa, these early migrants established populations who were far more similar to each other than to their relatives who stayed.

This genetic diversity has far-reaching implications for the vast amount of research pouring out of gene-disease association studies. For example, using single nucleotide polymorphisms to identify genes which have a role in disease may be difficult because of the variation in the frequency of such polymorphisms across populations. Disease phenotypes are also probably far more affected by socio-economic and environmental factors than most laboratory geneticists realise.

Barbour V. *Lancet* 2003; **362**: 1635.