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Burkholderia pseudomallei infections in Finnish tourists injured by the December 2004 tsunami in Thailand

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Burkholderia pseudomallei was isolated from three Finnish patients in January 2005. All three cases were in tourists who were visiting Khao Lak on the southwest coast of Thailand when the tsunami struck in December 2004. Two strains were isolated from wound swabs and one from a blood culture.

B. pseudomallei is an environmental Gram negative bacterium, endemic in tropical climates, that can cause melioidosis, a potentially life-threatening disease, even in previously healthy individuals. Humans can be infected by soil contamination of skin abrasions. Most human cases are reported from South East Asia where *B. pseudomallei* is endemic. The infection is very rare in Europe, and the only case to have been previously reported in Finland was in a man who travelled to Thailand in 2000 [1]. The spectrum of infections caused by *B. pseudomallei* ranges from mild wound infections to septic disease or pneumonia. In the severe forms of the disease, the mortality is variable, ranging from about 20% to 40% [2,3].

There has been increased awareness of melioidosis as a potential complication of the December 2004 tsunami in South East Asia, and a number of *B. pseudomallei* isolates from people who were injured in the natural disaster have been reported [4-6]. Most of the isolates have been from wound swabs, and only a few cases of systemic disease have been reported. The three Finnish cases described here are a reminder for clinicians to consider melioidosis in patients who have returned from South East Asia after the tsunami with unexplained fevers, or unusual Gram negative isolates from wounds, blood, or respiratory samples.

The first case was in a 17 year old woman with a deep wound in her lower leg. *B. pseudomallei* was isolated from a wound swab. She had been treated in a hospital in Bangkok for three days before returning to Finland. On arrival in Finland, her left foot was red and swollen, and a swab taken before revision of the wound grew *B. pseudomallei*. Consecutive

swabs remained negative and further plastic surgery procedures were carried out a week later. The patient was treated with clindamycin and ciprofloxacin. She did not develop any clinical symptoms of melioidosis and has fully recovered.

The second case was in a 47 year old male. He had several superficial wounds, some of which had been surgically treated in Khao Lak. On arrival in Finland he had a fever, but his general health was good and vital signs were normal. He had a deeper wound in his right elbow and a small abscess in the corner of his left eye. Aspiration pneumonia was suspected because he had breathed in muddy water and his chest x ray showed bilateral changes. *B. pseudomallei* was isolated from two blood cultures taken during his first day in hospital. This patient is considered to have had a confirmed case of melioidosis. He was treated with broad spectrum intravenous antibiotics (ceftriaxone, clindamycin and levofloxacin, followed by meropenem and ciprofloxacin after the results of the sensitivity testing were obtained). His fever continued for ten consecutive days, but he has now recovered. He is still on doxycycline and trimethoprim/sulfamethoxazole therapy, which is to be continued for twenty weeks.

The third case was in a 54 year old man who had a wound infection and was sent to hospital by a general practitioner one day after returning to Finland. Two of his wounds had been sutured in Thailand. After admission to hospital in Finland, he developed septic shock and was treated in an intensive care unit (ICU) for three days. He did not have pneumonia and was treated with meropenem and ciprofloxacin. All blood cultures remained negative. A wound swab taken during wound revision three days after the patient was released from the ICU grew *B. pseudomallei*. The diagnosis of melioidosis is presumptive. The patient was treated in hospital for 29 days and recovered fully. His antibiotic treatment has been discontinued.

Clinicians or microbiologists currently dealing with cases of melioidosis in patients returning from South East Asia after the tsunami are invited to contact David Dance at the Health Protection Agency South West Regional Microbiologist Office in England, who is collating information on cases worldwide. Email david.dance@phnt.swest.nhs.uk or telephone +44 (0) 1752 247143.

References:

1. Carlson P, Seppanen M. Melioidosis presenting as urinary tract infection in a previously healthy tourist. *Scand J Infect Dis* 2000;**32**(1):92-3.
2. Currie BJ, Fisher DA, Howard DM, Burrow JN, Lo D, Selva-Nayagam S, et al. Endemic melioidosis in tropical northern Australia: a 10-year prospective study and review of the literature. *Clin Infect Dis* 2000;**31**(4):981-6.
3. White NJ. Melioidosis. *Lancet* 2003;361(9370):1715-22
4. MELIOIDOSIS, TSUNAMI-RELATED - THAILAND. in: ProMED-mail [online]. Boston US: International Society for Infectious Diseases, archive no. 20050127.0296, 27 January 2005. (<http://www.promedmail.org>)
5. MELIOIDOSIS, TSUNAMI-RELATED (02): THAILAND, REQUEST FOR INFORMATION. in: ProMED-mail [online]. Boston US: International Society for Infectious Diseases, archive no. 20050202.0356, 2 February 2005. (<http://www.promedmail.org>)
6. MELIOIDOSIS, TSUNAMI-RELATED (03): AUSTRALIA, FINLAND. In: ProMED-mail [online]. Boston US: International Society for Infectious Diseases, archive no. 20050205.0399, 5 February 2005. (<http://www.promedmail.org>)

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