Medical News

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Rhizopus microsporum Outbreak From Tongue Depressors

Dr. S. Mitchell and colleagues reported four cases of nosocomial cutaneous infection with *Rhizopus microsporum* in preterm infants in the neonatal nursery at Birmingham Women's Hospital in Edgbaston, Birmingham, England. The four cases occurred between January 31, 1966, and March 7, 1966. Three of the cases progressed to invasive necrotizing cellulitis; three patients died. The source of the infection was identified as wooden tongue depressors, which were being used to construct splints for intravenous and arterial cannulation sites. The outbreak ended with removal of the splints from the nursery. Fungal infections are a well-recognized hazard in preterm infants, often associated with the presence of indwelling vascular catheters or following overgrowth in the gastrointestinal tract. However, *R microsporum* is an uncommon pathogen. Of the six case reports in the medical literature of neonatal infections with *Rhizopus* species, none was due to *R microsporum*. The authors noted that wooden tongue depressors often are used in the neonatal nursery to make splints for intravenous cannula sites, covered with a foam sleeve so that the wood does not come in contact the infant's skin. The combination of warm, humid conditions in neonatal incubators, especially in association with occlusive dressings, may favor cutaneous fungal invasion and place neonates at particular risk of infection.

FROM: Mitchell SJ, Gray J, Morgan MEI, Durbin GM. Nosocomial infection with *Rhizopus microsporum* in pre-term infants: association with wooden tongue depressors. *Lancet* 1996;348:441-443.

Mycobacterium abscessus Outbreak From Contaminated Drug

As of August 1996, the CDC reported 47 cases of abscesses caused by *Mycobacterium abscessus* (formerly *Mycobacterium chelonae* subspecies *abscessus)* at the site of intramuscular injection of a preparation labeled "adrenal cortex injection." This preparation was administered as part of a weight-loss regimen by a physician in the Denver area. Seventeen persons required one or more incision and drainage procedures; two persons required subcutaneous excisions. In addition to these 47 cases in the Denver area, the physician reported five similar cases among patients he had treated who resided in Wyoming. Rapid-growing *Mycobacterium* consistent with *M abscessus* was isolated from one unopened and three opened vials of purported adrenal cortex extract. The vials were labeled "distributed by Hallmark Labs, Inc" and did not have lot numbers or expiration dates. The label stated the product could be administered intramuscularly, intravenously, or subcutaneously. This product had not been approved by the US Food and Drug Administration (FDA). This outbreak illustrates the risks associated with use by patients and healthcare providers of non–FDA-approved products or products from unknown sources. Preliminary information suggests the product is distributed primarily to alternative-medicine providers. Abscesses following injection of adrenal cortex extract should be reported to local and state health departments.

FROM: Centers for Disease Control and Prevention. Infection with *Mycobacterium abscessus* associated with intramuscular infection of adrenal cortex extract—Colorado and Wyoming, 1995-1996. *MMWR* 1996;45(33):713-715.

URI Increases Shedding of MRSA

Dr. Robert Sherertz and colleagues from the North Carolina Baptist Hospital in Winston-Salem, North Carolina, recently reported an outbreak of methicillin-resistant *Staphylococcus aureus* (MRSA) infections that occurred in a surgical intensive-care unit (SICU). The researchers investigated the contribution of a nasal MRSA carrier (Physician 4), who contracted an upper respiratory infection (URI), to an outbreak of MRSA infections that involved 8 of 43 patients in an SICU in a 3-week period. Cultures for nasal carriage of MRSA were obtained from 64 clinical personnel who worked in the SICU. Molecular typing confirmed that the MRSA isolates from Physician 4 and from the patients were identical. Multiple logistic regression analysis identified exposure to Physician 4 and duration of ventilation as independent risk factors for colonization with MRSA. Physician 4 described having a persistent URI during the period in which the patients were infected. The URI lasted 3 weeks and was characterized by extensive nasal discharge, coughing, and occasional sneezing. Agar settle plates and volumetric air cultures were used to evaluate the airborne dispersal of *S aureus* by Physician 4 before and after a rhinovirus infection and with or without a surgical mask. These air cultures showed that Physician 4 dispersed little *S aureus* in the absence of a URI. After experimental induction of a rhinovirus URI, Physician 4's airborne dispersal of *S aureus* without a surgical mask increased 40-fold; dispersal was significantly reduced when Physician 4 wore a mask. The authors concluded that Physician 4 became a "cloud adult" analogous to the "cloud babies" described by Eichenwald and coworkers in 1960 . These cloud babies shed *S aureus* in to the air in association with viral URIs. In addition, the authors noted that the reduction of *S aureus* dispersement when Physician 4 wore a surgical mask, in combination with the fact that none of the patients on whom Physician 4 operated during the outbreak period developed surgical-site infections, suggests that surgical masks may interrupt airborne transmission of *S aureus* and other bacterial pathogens that colonize the nose.

FROM: Sherertz RJ, Reagan DR, Hampton KD, et al. A cloud adult—the *Staphylococcus aureus*—virus interaction revisited. *Ann Intern Med* 1996;124:539-547.

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