Letters to the Editor

Paecilomyces lilacinus Fungemia in a Jamaican Neonate

The Editor

Sir,

Invasive opportunistic fungal infections have increased in frequency over the last two decades, while *Candida sp* remains the most common cause of fungemia (1, 2). This report describes the fourth documented case of *Paecilomyces lilacinus* fungemia, the first such case to be reported at the University Hospital of the West Indies (UHWI).

A 35-week gestation female infant, weighing 3.5 kg was born to a 31-year old mother with a normal antenatal history at a hospital in rural Jamaica. At birth, the infant was jaundiced and was diagnosed as having Downs Syndrome. The infant subsequently developed a low grade pyrexia and was transferred to the UHWI on day thirteen. Significant findings included jaundice, pyrexia (100^{o}F), abdominal distention and cardiac murmurs consistent with a ventricular septal defect and patent ductus arteriosus. A diagnosis of sepsis with necrotizing enterocolitis was made. Results of a full septic screen were negative. A nasogastric tube was inserted for oral feeds and intravenous ampicillin, cloxacillin, gentamicin and metronidazole were administered through a peripheral intravenous catheter. These antibiotics were administered for seven days with resolution of the fever and abdominal distention, and incomplete resolution of jaundice. Oral feeds were subsequently commenced. The infant remained mildly icteric and again developed abdominal distention and fever on day 14, when a second septic screen was done. An ultrasound investigating the infant's abdominal distention revealed multiple abscesses, aspirates from which were culture positive for *Citrobacter diversus* and *Escherichia coli*. A new antibiotic regimen was commenced with intravenous rocephin, metronidazole and ampicillin. The infant however remained febrile.

Results of the two sets of blood cultures taken from the peripheral vein on day 14 at the UHWI were positive for a fungus initially identified as *Penicillium spp.* This isolate was subsequently referred to Mayo Clinic, Minnesota, USA, for further identification. Antimicrobial treatment was changed to include intravenous amphotericin B, amikacin and ceftazidime. Amphotericin B was given for 18 days. The isolate was later confirmed by Mayo Clinic to be *Paecilomyces lilacinus* (Figure). The patient responded favourably to treatment with amphotericin B and was discharged on maintenance fluconazole.

Paecilomyces lilacinus is a ubiquitous fungal saprophyte and an uncommon human pathogen which is known to infect a variety of organs with varying degrees of morbidity and mortality (1, 3, 4). Identification of the fungus is difficult as it is closely related to the genus Penicillium (1). Prolonged use of antibiotics and invasive procedures, including peripheral intravenous catheters predispose to acquisition of opportunistic pathogens, such as *Paecilomyces*. Although *Paecilomyces lilacinus* has been reported to be resistant to amphotericin B and fluconazole, the infant herein presented responded favourably to this management (5).

From: ST Jackson[1], MF Smikle[1], MG Antoine[2], GD Roberts[3]. Departments of Microbiology[1] and Obstetrics, Gynaecology and Child Health, Section of Paediatrics[2], The Unviersity of the West Indies, Kingston 7, Jamaica and Division of Clinical Microbiology, Department of Laboratory Medicine and Pathology[3], Mayo Clinic, Rochester, Minnesota, USA.

Correspondence: Dr ST Jackson, Department of Microbiology, The University of the West Indies, Kingston 7, Jamaica. Fax: (876) 977-1265, e-mail: sandra.jacksonbetty.uwimona.edu.jm

Figure: *Paecilomyces lilacinus* (magnification x 500).

REFERENCES

1. Tan TQ, Ogden AK, Tillman J, Demmler GJ, Rinaldi MG. Paecilomyces lilacinus catheter-related fungemia in an immunocompromised pediatric patient. J Clin Microbiol. 1992; **30:** 2479–83.
2. Hajjeh RA, Sofair AN, Harrison LH, Lyon GM, Arthington-Skaggs BA, Mirza SA et al. Incidence of bloodstream infections due to Candida species and in vitro susceptibilities of isolates collected from 1998 to 2000 in a population-based active surveillance program. J Clin Microbiol 2004; **42:**1519–27.
3. Roque J, Navarro M, Toro G, Gonzalez I, Pimstein M, Venegas E. Paecilomyces lilacinus systemic infection in an immunocompromised child. Rev Med Chil 2003; 13**:** 77–80.
4. Chan-Tack KM, Thio CL, Miller NS, Karp CL, Ho C, Merz WG. Paecilomyces lilacinus fungemia in an adult bone marrow transplant recipient. Med Mycol 1999; 37: 57–60.
5. Aguilar C, Pujol I, Sala J, Guarro J. Antifungal susceptibilities of Paecilomyces species. Antimicrob Agents Chemother 1998; **42:**1601–4.