**Results:** Fifty-two pts with leukemia and RSV infection were identified. The median age was 47y (1–83 y). Most pts were male (65%), and had acute leukemia (65%). Forty-six percent of pts had received salvage chemotherapy and most (62%) were on corticosteroids before RSV infection. Most pts (27, 52%) had pneumonia, and 25 (48%) had upper respiratory infection (URI). When compared to pts with URI, pts with pneumonia had longer duration of symptoms (9 vs 20 d), longer length of stay (6 vs 12 d), higher need for intensive care (0% vs 26%), higher APACHE-II score (11 vs 16), and received more steroids within one month before infection (48% vs 74%) (att P < 0.05). Twenty-four of 52 (46%) pts were treated with aerosolized ribavirin (RBV). Progression to pneumonia was associated with lack of RBV therapy (96% of non treated pts progressed to pneumonia vs 68% of treated pts, P < 0.01). Multiple logistic regression analysis identified high APACHE-II score and lack of RBV therapy as independent predictors of progression to pneumonia (P < 0.01). RSV-attributed mortality was 10% (5 of 52 pts) at 30 d. Risk factors for mortality by univariate analysis were age >65, higher duration of symptoms before RSV diagnosis (14 vs 4 d), APACHE-II score >15, presence of comorbidities, and progression to pneumonia (all P < 0.05).

**Conclusion:** Progression to RSV pneumonia in pts with leukemia is associated with considerable morbidity and mortality. Timely treatment with ribavirin therapy might halt such progression.

---

109

*Scedosporium Prolificans* and *Apiosporum*: Distinct Clinical Epidemiological Characteristics in an Australian Tertiary Hospital Setting

L. Cooley, M. Slavin, K. Thursky*, D. Spellman. Peter MacCallum Cancer Centre, Melbourne, Victoria, Australia

**Background:** *Scedosporium apiospermum* and *prolificans* are fungi of increasing clinical significance. In the final months of 2000, an increase in the number of *Scedosporium* isolates and the appearance of *S. prolificans* was noted at the Alfred Hospital, a quaternary referral university hospital providing state-wide trauma, burns, cystic fibrosis, heart and lung transplant and HIV services. At this time a new building and car park were being constructed.

**Objectives:** To describe the epidemiology, clinical features and outcome of patients infected with *Scedosporium* spp.

**Method:** A review was performed of the records of all patients where *Scedosporium* spp. had been isolated between June 30th 1997 and December 31st 2003. Between March 2001 and July 2002 environmental samples were collected from common hospital public access areas within and adjacent to the construction site and from ward areas including corridors, nursing stations and patient rooms.

**Results:** Throughout the period of the study *S. apiospermum* was isolated at a constant rate, with between three to six clinical isolates being obtained per year. Seasonal clustering was not noted. *S. apiospermum* was isolated predominantly from the respiratory tract of patients with underlying lung diseases (28/31) and resulted in one disseminated infection and death. In contrast, *S. prolificans* was isolated only after November 1999 from 28 patients. All 8 patients with haematological malignancy or haematopoetic stem cell transplant (HSCT) had invasive infection: 6 had fungemia or disseminated infection and 6 died from infection. In 2 patients with haematological malignancy, colonization was followed by invasive infection. *S. prolificans* caused locally invasive infection in 3 immunocompetent patients and was found in the respiratory tract of 17 patients with underlying respiratory disease (eg cystic fibrosis or after lung transplant), but resulted in no fungemia, dissemination or deaths in these settings. Two clusters of invasive infection occurred in autumn of 2001 and 2003 during periods of hospital building works that required deep excavation. Susceptibility testing of four invasive *S. prolificans* isolates from HSCT recipients showed all isolates were resistant to amphotericin B, fluconazole, itraconazole, 5-flucytosine and ketoconazole. Voriconazole MICs ranged from 2 to 8 mg/L, and terbinafine MICs ranged from 1 to 4 mg/L. In contrast *S. apiospermum* showed a less resistant profile.

**Conclusion:** *Scedosporium apiospermum* and *prolificans* demonstrated distinct clinical and epidemiological features. During the period of this review *S. prolificans* emerged as a major pathogen in allogeneic HSCT recipients in both the early and late post-transplant period although no environmental source was detected.