New Azole Found to Prevent Invasive Fungal Infections

BY NANCY WALSH
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LAS VEGAS — Results of two large studies have shown that prophylaxis with oral posaconazole can prevent invasive fungal infections in bone marrow transplant recipients and patients with hematologic malignancies, Dr. Catherine J. Hardalo reported.

Invasive fungal infections have emerged as a potentially lethal complication for immunosuppressed patients, and some of the pathogens involved are resistant to standard antifungal therapy. Posaconazole is a broad-spectrum agent with activity against Aspergillus, Paecilomyces, Coccidioides, Candida, pigmented and hyaline molds, and the Zygomycetes, she said at a meeting on fungal infections.

Previously, the drug had been used primarily as salvage therapy for patients with invasive aspergillosis, with about 40% of patients responding, said Dr. Hardalo, senior director of anti-infectives clinical research, Schering-Plough Research Institute, Kenilworth, N.J.

Current prophylaxis options include fluconazole and micafungin for patients undergoing hematopoietic stem cell transplantation, and itraconazole (in Europe only) for the prevention of fungal infections during prolonged neutropenia. Posaconazole has been evaluated in a multicenter, double-blind study that included 600 patients who had undergone allogeneic stem cell transplantation and had graft-versus-host disease. They were randomized to receive either posaconazole 200 mg three times daily, or fluconazole 400 mg/day, for 16 weeks. The incidence of invasive fungal infections and invasive aspergillosis was 2% and 1%, respectively, in the posaconazole group vs. 8% and 6% in the fluconazole group.

A total of 76 patients in the posaconazole group died, as did 84 in the fluconazole group. This difference was not significant. However, only 4 patients on posaconazole died from fungal causes, which was significantly fewer than the 12 patients with fungal-related deaths in the fluconazole group.

In a second study, 600 patients with acute myelogenous leukemia or myelodysplastic syndrome received the same dose of posaconazole or fluconazole. There were 58% and 61% incidence of aspergillosis, fluconazole 4 mg once a day, or itraconazole, 200 mg twice a day. The number of cases of invasive fungal infection and invasive aspergillosis were virtually the same as in the other study. 23% and 1% for posaconazole, and 8% and 7% for the other azoles, Dr. Hardalo said.

There were 49 deaths among patients receiving posaconazole and 67 among patients receiving the other azoles. The deaths in the posaconazole group were fungal related, as were 16 in the other azole groups. These differences were not significant.

Moreover, for the first time, a survival benefit was seen among neutropenic patients, she said.

One Hospital’s Experience: Number Of MRSA Patients Doubled in 1 Year

BY KERRI WAGHTER
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WASHINGTON — The number of methicillin-resistant Staphylococcus aureus infections has dramatically risen in recent years, and more and more cases are community acquired, at least in one emergency department, Dr. Mary-Claire Roghmann said at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

“We had more than a doubling (in new cases of methicillin-resistant S. aureus) from 2003 to 2004,” said Dr. Roghmann, the hospital epidemiologist for Veterans Affairs Maryland Health Care System. The ED at Baltimore VA Medical Center sees about 85 patients per day.

Tipped off by ED physicians that more community-acquired MRSA cases were seen in more than 70% of patients had skin and soft tissue infections, and symptoms of infection at the site. Risk factors for hospital-acquired MRSA infection included history of hospitalization, surgery, dialysis, or residence in a long-term care facility in the last year. Patients were excluded if they had a percutaneous medical device or indwelling catheter at the time of the culture. Patients without any of these risk factors were determined to have community-acquired MRSA.

In 2004, there were 90 patients who met the criteria for newly acquired MRSA based on cultures from the ED. “Of those, 58% had community-acquired MRSA. The vast majority of patients had skin and soft tissue infections,” Dr. Roghmann said at the meeting, which was sponsored by the American Society for Microbiology.

In terms of antibiotic susceptibility, community-acquired MRSA cultures were more likely than hospital-acquired MRSA to be resistant to ciprofloxacin and tetracycline. The emergency physicians had also in- dicated that vancomycin is not considered a particularly useful systemic drug because of its pharmacokinetics, but in these cases there really is not much else left,” he said.