

# Infectious Diseases Update

Abstracts of current literature on epidemiology, diagnosis, and treatment

Series Editor: Jihad Slim, MD

## EFFECTS OF ITRACONAZOLE ON ALLERGIC BRONCHOPULMONARY ASPERGILLOSIS

A randomized, double-blind, placebo-controlled study was conducted to assess the effects of itraconazole treatment on patients with corticosteroid-dependent allergic bronchopulmonary aspergillosis. In the double-blind phase of the study, patients ( $n = 55$ ) were randomized to receive 200 mg twice daily of itraconazole ( $n = 28$ ) or placebo ( $n = 27$ ) for 16 weeks. Response to treatment was defined as a 50% or greater reduction in the corticosteroid dose, a decrease of 25% or more in total IgE concentrations, in addition to at least one of the following: increase in exercise tolerance of 25% or more, improvement of 25% in results of pulmonary-function tests, and resolution or absence of infiltrates. Overall response rates were 46% (13 of 28 patients) in the itraconazole arm compared with 19% (5 of 27 patients) in the placebo arm. Adverse events occurred in 89% (25 of 28 patients) of the itraconazole arm and 85% (23 of 27 patients) of the placebo arm. Of the 55 patients in the double-blind phase, 50 patients continued in the open-label phase and received a decreased dose of itraconazole (200 mg once daily) for an additional 16 weeks. Of patients who had no response in the double-blind phase, 36% (12 of 33 patients) had a response in the open-label phase. No relapses occurred in the patients who responded in the double-blind phase. The study concluded that itraconazole may be a beneficial antimicrobial agent for the treatment of allergic bronchopulmonary aspergillosis and further randomized, controlled studies are needed.

Stevens DA, Schwartz HJ, Lee JY, et al: A randomized trial of itraconazole in allergic bronchopulmonary aspergillosis. *N Engl J Med* 2000;342:756-762.

## TREATMENT OF CANDIDURIA WITH FLUCONAZOLE

A prospective, randomized, placebo-controlled study evaluated the efficacy of fluconazole for the short-term treatment of asymptomatic or minimally symptomatic candiduria. Hospitalized patients ( $n = 316$ ) with two consecutive urine cultures at least 24 hours apart that were positive for candiduria were randomized to receive 200 mg/day of fluconazole ( $n = 159$ ) or placebo ( $n = 157$ ) for 14 days, after an initial loading dose of 400 mg of fluconazole or placebo. Satisfactory response was defined as eradication of *Candida* fungus at the completion of treatment. In an intent-to-treat analysis, eradication of *Candida* organisms occurred on day 14 in 50% (79 of 159 patients) of the fluconazole arm compared with 29% (46 of 157 patients) of the placebo arm. For patients who completed 14 days of therapy, response rates were 78% in non-

catheterized patients compared with 52% in catheterized patients. The study suggests that oral fluconazole is safe and effective for the treatment of asymptomatic or minimally symptomatic candiduria.

Sobel JD, Kauffman CA, McKinsey D, et al: Candiduria: a randomized, double-blind study of treatment with fluconazole and placebo. *Clin Infect Dis* 2000;30:19-24.

## CIGARETTE SMOKING AND INVASIVE PNEUMOCOCCAL DISEASE

A population-based case-control study assessed the impact of active and passive smoking and other factors on the risk of invasive pneumococcal disease. Invasive pneumococcal disease was defined as an illness in which isolation of *Streptococcus pneumoniae* from a normally sterile site occurred. Immunocompetent patients ( $n = 228$ ) ages 18 to 64 years with invasive pneumococcal disease were matched to control subjects ( $n = 301$ ) who were selected from the general population through random-digit telephone dialing. Both patients and control subjects were interviewed regarding chronic illnesses, environmental and occupational exposures, socioeconomic factors, and cigarette smoking. In multivariable analysis, patients were 4.1 times as likely as control subjects to be current smokers and 3 times as likely as control subjects to live with children younger than 6 years who attended day care. The population-attributable risks for the various independent risk factors in the multivariable analysis were 51% for cigarette smoking, 17% for passive smoking among nonsmokers, 14% for chronic illness, 57% for chronic illness and smoking combined, and 11% for living with children attending day care. Additionally, the adjusted odds ratio for invasive pneumococcal disease among current smokers increased from 2.3 to 5.5 with increases in the number of cigarettes smoked; this finding suggests a dose-response relation. The study concludes that cigarette smoking is the strongest independent risk factor for invasive pneumococcal disease in nonelderly immunocompetent adults and that further efforts should focus on reducing exposure to this modifiable risk factor.

Nuorti JP, Butler JC, Farley MM, et al: Cigarette smoking and invasive pneumococcal disease. *N Engl J Med* 2000;342:681-689.

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