Abstracts of current literature on epidemiology, diagnosis, and treatment

Series Editor: Jihad Slim, MD

ATOVAQUONE AND AZITHROMYCIN FOR TREATMENT OF BABESIOSIS

A prospective, nonblinded, randomized trial was conducted to compare the safety and efficacy of a regimen of atovaquone and azithromycin with those of a conventional regimen of clindamycin and quinine in individuals (n = 58) with non–life-threatening babesiosis. Subjects were randomly assigned to receive either atovaquone (750 mg every 12 hours) and azithromycin (500 mg on day 1 and 250 mg daily thereafter) for 7 days (n = 40), or clindamycin (600 mg every 8 hours) and quinine (650 mg every 8 hours) for 7 days (n = 18). The subjects in the 2 treatment groups had similar age and sex distributions, had a similar array of symptoms, and had a similar degree of parasitemia when therapy commenced. Overall, adverse reactions were fewer and less severe in the subjects who received atovaquone and azithromycin than in those who received clindamycin and quinine. Six months after the start of therapy, no patient in either group had symptoms. Three months after the completion of the assigned regimen, no parasites could be seen on microscopy, and no *Babesia microti* DNA was detected in the blood of any subject. Researchers concluded that an antibiotic regimen based on a combination of atovaquone and azithromycin is generally superior to one based on a combination of clindamycin and quinine for treatment of babesiosis, mainly because the former is better tolerated by patients.

Krause PJ, Lepore T, Sikand VK, et al. Atovaquone and azithromycin for the treatment of babesiosis. N Engl J Med 2000;343:1454–8.

RISING RATES OF PRIMARY LIVER CANCER

By using information obtained from the US Department of Veterans Affairs Patient Treatment File concerning the main risk factors and medical conditions associated with hepatocellular carcinoma, a study was conducted to examine the temporal trends of risk factors among patients diagnosed as having primary liver cancer between 1993 and 1998 (N = 1605). Temporal changes in both age-specific and age-standardized hospitalization rates of primary liver cancer associated with hepatitis C, hepatitis B, and alcoholic cirrhosis were examined. The majority of these patients were men (99.5%). The mean age of patients was 64 years. The ethnic distribution was as follows: whites (65%), blacks (21%), Hispanics (10%), American Indians (1%), Asians (1%), and unspecified (2%). Between 1993 and 1998, there was a 3-fold increase in the age-adjusted rates for primary liver cancer associated with the hepatitis C virus (HCV). Accompanying this rise, the age-specific rates for primary liver cancer associated with hepatitis C also shifted toward younger patients. The age-adjusted rates for primary liver cancer associated with either hepatitis B virus or alcoholic cirrhosis remained stable. The rates for primary liver cancer without risk factors also remained without a statistically significant change. The researchers found that primary liver cancer associated with HCV infection was the most important underlying cause of increase in the overall rates of hospitalization for liver cancer among veterans in the United States.

El-Serag HB, Mason AC. Risk factors for the rising rates of primary liver cancer in the United States. Arch Intern Med 2000;160: 3227–30.

PREDICTING INFLUENZA INFECTION

A retrospective, pooled analysis of the baseline signs and symptoms of patients from 8 clinical trials studying the antiviral agent zanamivir for the treatment of influenza type A and type B viral infections was conducted to determine the clinical signs and symptoms that are the most predictive of influenza infection in patients with influenza-like illness. Enrolled in the studies, and included in the analysis, were mainly unvaccinated adults and adolescents (mean age, 35 years; n = 3744) who had influenza-like illness (defined as having fever or feverishness plus at least 2 of the following influenza-like symptoms: headache, myalgia, cough, or sore throat). A diagnosis of influenza was defined either as a positive culture of influenza virus or as a 4-fold or greater increase in influenza antibody titer in convalescent versus acute serum samples as determined by hemagglutination inhibition. Clinical signs and symptoms were evaluated in statistical models to identify those best predicting laboratory confirmation of influenza. Individuals with influenza were more likely than those without influenza to have cough (93% vs 80%), fever (68% vs 40%), cough and fever together (64% vs 33%), and/or nasal congestion (91% vs 81%). The best multivariate predictors of influenza infections were cough and fever with a positive predictive value of 79%. The researchers concluded that when influenza is circulating within the community, patients with an influenza-like illness who have both cough and fever within 48 hours of symptom onset are likely to have influenza, and the administration of influenza antiviral therapy may be appropriate to consider.

Monto AS, Gravenstein S, Elliott M, et al. Clinical signs and symptoms predicting influenza infection. Arch Intern Med 2000;160: 3243–7.

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