Pneumocystis Pneumonia

TO THE EDITOR: Thomas and Limper (June 10 issue)[1] mention a decreased prevalence of AIDS in the Western Hemisphere associated with the use of highly active antiretroviral therapy (HAART), resulting in decreased rates of pneumocystis pneumonia. However, there are important gaps in these gains in the United States. Pneumocystis pneumonia continues to occur disproportionately and remains one of the leading causes of morbidity and mortality among patients in the inner city infected with the human immunodeficiency virus (HIV). We reviewed cases of confirmed pneumocystis pneumonia at Grady Memorial Hospital in Atlanta before and after the introduction of HAART (Table 1). Our data suggest that the introduction of HAART has not affected the occurrence of or mortality associated with pneumocystis pneumonia among the inner-city population in Atlanta. Furthermore, pneumocystis pneumonia continues to be the first indication of HIV infection and a marker of inadequate access to care or poor adherence to medical therapy. Public health resources should be targeted to inner-city communities in order to diagnose HIV infection at an early stage so that patients may benefit from therapeutic interventions.

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1. Thomas CF Jr, Limper AH. Pneumocystis pneumonia. N Engl J Med 2004;350:2487-98.

TO THE EDITOR: Thomas and Limper make no mention of the special problems in diagnosing and treating pneumocystis pneumonia in the developing world. In the first decade of the HIV epidemic, pneumocystis pneumonia was considered an uncommon pathogen in the developing world. Fisk and colleagues[1] found only a few African and Asian studies (prevalence rates, only 3 percent to 9 percent); no Indian study reported data on pneumocystis pneumonia, even though 4 million Indians are currently believed to be infected with HIV.[2] We prospectively collected data on all HIV-positive patients admitted to the pulmonary service at our tertiary referral center in Bombay between 2000 and 2003. Pneumocystis pneumonia was documented in 32 percent of all pulmonary admissions (38 of 120), was more frequent than pneumonia, and was second only to pulmonary tuberculosis as a cause of admission. Pneumocystis pneumonia was suspected and diagnosed late and, consequently, was associated with increased mortality (16 percent). In our opinion, lack of awareness, masking by tuberculosis, and lack of diagnostic facilities (e.g., bronchial

Table 1. Characteristics of Cases of Pneumocystis Pneumonia (PCP) at Grady Memorial Hospital, Atlanta, 1991–2001.*

Characteristic	Overall	Introduction of HAART		P Value
		Before (1991–1995)	After (1996–2001)	
	no./total no. (%)	*number*		
No. of cases	488†	234	254	—
PCP as initial manifestation of HIV infection	186/488 (38)	92	94	0.90
ICU care required	145/488 (32)	72	73	0.90
Patient died when PCP was initial manifestation of HIV infection	90/186 (48)‡	48	42	0.90
PCP prophylaxis prescribed	151/488 (30)	72	79	0.96
HAART prescribed	71/254 (27)	—	71§	—

* HAART denotes highly active antiretroviral therapy, HIV human immunodeficiency virus, and ICU intensive care unit.
† The median CD4+ T-cell count at diagnosis was 18 cells per cubic millimeter, with no differences before and after HAART came into use.
‡ Overall mortality was 41 percent (202 of 488 patients died).
§ After HAART came into use, only 44 percent of patients (71 of 160) known to be infected with HIV and eligible for HAART according to the Department of Health and Human Services guidelines were prescribed HAART before an episode of PCP.

lavage, high-resolution computed tomography, and immunofluorescence staining) are responsible for the underreporting and late diagnosis of pneumocystis pneumonia in India.

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1. Fisk DT, Meshnick S, Kazanjian PH. Pneumocystis carinii pneumonia in patients in the developing world who have acquired immunodeficiency syndrome. Clin Infect Dis 2003;36:70-8.
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TO THE EDITOR: Although pneumocystis pneumonia is a common opportunistic infection in HIV and AIDS and is seen in patients with hematologic cancers, those receiving transplants, and those receiving immunosuppressive therapy, it is also seen in patients without these risk factors. In the 1990s, series of patients without apparent risk factors were described in New York and Spain.[1,2] Pneumocystis pneumonia has been described as a coinfection in cytomegalovirus pneumonia in children with severe transient immunodeficiency. We also found reports of pneumocystis pneumonia in infants with transiently depressed CD4+ T-lymphocyte counts.[3,4]

We recently hospitalized a six-month-old infant who presented with eczema and progressive tachypnea. On open-lung biopsy, pneumocystis pneumonia was diagnosed. The patient received co-trimoxazole and corticosteroids and required ventilatory support for six days but recovered uneventfully.

The patient was HIV-negative; she had transient lymphopenia. Extensive immunologic evaluation revealed normal numbers and function of lymphocyte subgroups. The patient is doing well without antibiotic prophylaxis. Thus, pneumocystis pneumonia is possible in immunocompetent infants with interstitial pneumonia.

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Hereditary Hemochromatosis

TO THE EDITOR: Dr. Pietrangelo (June 3 issue)[1] proposes that a liver biopsy be performed for diagnosis of suspected adult-onset hereditary hemochromatosis when first-line genetic testing does not reveal typical mutations and serum ferritin is persistently elevated. Two articles published this year[2,3] show that magnetic resonance imaging (MRI) provides a useful and noninvasive diagnostic tool for quantification of hepatic iron concentrations. Gandon et al.[2] found that a highly T_2-weighted gradient-echo sequence was most sensitive, permitting detection of all clinically relevant cases of hepatic iron overload that exceeded 60 μmol per gram of liver, dry weight. We have used the MRI sequences proposed by Gandon[4] and have obtained similar results with a high correlation index. In our work,[3] the positive predictive value for hemochromatosis was 100 percent for estimated concentrations of more than 85 μmol per gram and the positive predictive value for iron overload was 100 percent for estimated concentrations of more than 58 μmol per gram. We think that magnetic resonance should be placed in the diagnostic algorithm before liver biopsy. Magnetic resonance may make it possible to avoid nearly all diagnostic liver biopsies.

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