Diagnosing P carinii

To the Editor:

The report by Israel et al1 of three patients with unsuspected Pneumocystis carinii pneumonia raises several important points in our understanding of this disease. These patients shared two features which may alter the ease of diagnosis of this now common infection; ie, a normal chest radiograph at presentation and treatment with corticosteroids prior to diagnosis.

I do not agree with the authors' statement that "normal chest roentgenogram findings in patients known to have Pneumocystis and AIDS is infrequent." This has been reported to occur in 3 to 14 percent of cases.2,3 Even an incidence of 3 percent would be significant in light of the epidemic proportions of AIDS, in which Pneumocystis carinii pneumonia (PCP) is the most common pulmonary manifestation. What the present series highlights, however, is the fact that such patients have not been analyzed as a distinct subgroup but have been included as part of the cohort in most studies of the diagnosis and treatment of PCP. The cases described by Israel et al did in fact have features characteristic of infection with PCP such as dyspnea and nonproductive cough, associated with pronounced hypoxemia, which are among the main presenting signs and symptoms in the majority of patients so afflicted.4 However, the lack of radiographic abnormalities, as well as any lifestyle-related risk factor, led the physicians involved away from the diagnosis.

This serves to underscore the importance of considering the possibility of the acquired immunodeficiency syndrome (AIDS) in patients with confusing clinical features, as noted by the authors. Hemophiliacs notwithstanding, nearly two percent of adult cases of AIDS in the US and 12 percent of pediatric cases have occurred in patients infected via blood products. In the present series, this information could have prevented the use of corticosteroid therapy in two of the three patients.

Although, as stated in the article, corticosteroids "may not have affected the ultimate outcome," their use may have indirectly provided valuable information regarding the validity of a normal gallium scan. In one case, the patient had been on prednisone treatment prior to performance of the scan, whereas in case three a strongly positive scan was obtained prior to corticosteroid therapy. This suggests that a gallium scan, although over 95 percent sensitive in most cases of PCP,5 may not be of diagnostic use in a patient pretreated with corticosteroids. The alveolitis accompanying the infection may be suppressed with consequent lack of uptake of gallium in the affected areas.

Finally, the negative results of bronchoalveolar lavage (BAL) in patients two and three, and of transbronchial biopsy (TBBs) in patients one and three are particularly surprising in light of published data, but may be explained by the characteristics of these patients. It has been reported that BAL alone provides a diagnostic yield for PCP of 86 to 98 percent6,7 and the combination of BAL plus TBBs over 95 percent. However, the great majority of patients in these studies had bilateral pulmonary infiltrates demonstrated at presentation. Is it possible that those patients with initially normal roentgenograms should be analyzed separately in terms of the most effective diagnostic approach? Perhaps these patients most closely resemble those of the pre-AIDS era who had smaller burdens of organisms per lung tissue sample, and even a better prognosis if treated early.

These questions remain to be addressed as more individuals infected with HIV develop PCP. It is conceivable that there are certain subgroups of patients with HIV-related PCP who, either due to inherent factors or as a result of treatment with agents which affect the immune response (eg, corticosteroids) require a more vigorous approach to establish an early diagnosis.

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REFERENCES

1 Israel HL, Gottlieb JE, Schulman ES. Hypoxemia with normal chest roentgenogram due to Pneumocystis carinii pneumonia. Chest 1987; 92:857-59

To the Editor:

We appreciate the comments of Dr. Connolly in response to our recent article in Chest concerning unsuspected Pneumocystis carinii pneumonia.1 Unfortunately, he appears to have misinterpreted our statement regarding the infrequency of normal chest roentgenogram findings in patients with Pneumocystis. Our choice of the word infrequent was meant to denote that normal chest x-ray findings were uncommon, and we did not state that these findings were not significant. In fact, the entire thrust of our case reports was that normal chest x-rays and hypoxemia should suggest Pneumocystis carinii pneumonia.
Of equal interest is the relationship between clinical course, radiographic findings and treatment with corticosteroids. Since the publication of our manuscript, there has been a flurry of interest in corticosteroid use in Pneumocystis carinii pneumonia, including recommendations for therapy with corticosteroids in addition to antimicrobials during overwhelming infection as well as at least one case report suggesting that corticosteroid therapy may result in radiographic and clinical resolution of Pneumocystis. The rapid demise of our three patients demonstrates that corticosteroid therapy alone is deleterious and may confuse the standard methods of diagnosis, including bronchoalveolar lavage, gallium scanning, chest radiography, and tests of gas exchange. Whether corticosteroids have value as an adjunct to antibiotic therapy in cases with established diagnoses is another matter.

As our experience with HIV related disease and its manifestations grows, we will undoubtedly encounter increasing numbers of patients with surprising presentations and findings. High diagnostic yields of bronchoalveolar lavage, transbronchial biopsy and/or gallium scanning (all of which hovered around 95 percent in well defined, high-risk patients with overt manifestations of Pneumocystis pneumonia) may prove to have lower sensitivity as we encounter a broader spectrum of patients with this disease.

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REFERENCES


Anatomy of Abstracts

To the Editor:

I read with great interest the recent editorial by Dr. Alfred Soffer under the title, "Abstracts of clinical investigations. A new and standardized format." I would like to present the results of technical evaluation of 200 medical literature abstracts. Six of ten abstracts did not show clearly the conclusions and seven of ten the meaning or perspective of the study. One of three abstracts included references to the rest of the article or elements of discussion. Only five percent of the abstracts had length exceeding 200 words.

Another study which examined the abstracts of a European Congress showed that 38 percent had elements of discussion, 60 percent were substandard and 29 percent unacceptable. Only one of 247 abstracts exceeded the 200-word limit. The abstracts did not describe the material and methods, results and conclusions of the study sufficiently, but included useless elements.

The data support the contention that poorly-written abstracts are more of a problem than long abstracts. The abstract is a kind of visiting card for the personality of the authors. They should take great care in composing the abstract of their medical communication if they want it to be more appealing.

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REFERENCES


Primum Non Nocere

To the Editor:

It is with great pleasure I have read and reread Dr. Robin’s article entitled "The Kingdom of The Near Dead" (Chest 1987; 92:330-34). I am a second year pediatric pulmonary fellow at Tulane and in my short career I have struggled with one of the issues raised in the article: primum non nocere. This is a difficult task when the empiric nature of medicine precludes one from reaching the truth; one must be satisfied with establishing reasonable boundaries wherein it might exist. I must confess that I despair at times of the obstacles, both within myself and without, in trying to establish (with some degree of objectivity) what the best course is for one’s patients. It is so easy to lose one’s patience and act . . . and err. That is why I found your article so enjoyable: anxiety is not a reason for action.

I am interested in academic pulmonary medicine and it encourages me to know that there are individuals at Dr. Robin’s level in academic medicine that conserve a healthy scientific skepticism. Recently, I came across an article by V. Patrick Ober (Am J Med 1987; 82:1009-13) and I will take the liberty of quoting it because I thought he, like Dr. Robin, was trying to address the reasons for our sometimes misguided attempts to help by “desperate measures”.

This quote is in the context of an article reviewing the uses and abuses of laboratory tests:

"Despite the common wisdom that lighting a single candle is preferable to cursing the darkness; Silverman observed that when we find ourselves in a fireworks factory, it may be better to curse the darkness than to light the wrong candle.”

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Pulmonary Cryptococcosis in AIDS

To the Editor:

We have read with interest the article by Wasser et al1 on pulmonary cryptococcosis in AIDS and would like to share our experience. Eighteen AIDS patients were diagnosed with cryptococcosis at our institution between January, 1981 and August, 1987. All had disseminated disease; however, only two had pulmonary involvement and in only one was pneumonitis the primary presentation (Table 1). All our patients had pulmonary involvement with other pathogens, notably Pneumocystis carinii, cytomegalovirus,