Such distinctions, on the basis of what one hears are really made from a subconscious diagnosis that is made by observing the patients. I am confident of this because when recorded crackles are played back to an audience of trained pulmonary physicians who then listen with acoustic stethoscopes, they agree that they hear crackles, but totally disagree as to wet vs dry, alveolar vs bronchial, etc.

The only terms that make any sense are those that define the sounds as either coarse, medium or fine crackles, and to specify when they occur within the respiratory cycle—early, middle or late, either inspiratory or expiratory. Furthermore, the characteristics of crackles have been carefully defined in physical terms by Murphy. An adventitious sound that qualifies as a crackle has specific physical properties—it is no longer a matter of your opinion or of mine. The same certainly cannot be said for “wet” or “dry” or “airways” as opposed to “alveoli.”

The International Lung Sounds Association welcomes recommendations from reputable organizations representing the mainstream of Spanish speaking physicians. What we have published is only what was recommended to us. Achieving a consensus was very difficult because I understand neither Spanish nor Portuguese. Even the several knowledgeable pulmonary physicians that advised us had difficulty deciding on the proper terms. This was due in part to some differences between the preferred nomenclature in Spanish and Portuguese that is used in South America and in Europe.

Incidentally, the original article in Chest contained several errors in the Table. They were largely corrected before the reprints were published.

David W. Cugell, M.D.
Chicago

Bronchial Non-adenoma

To the Editor:

The review entitled “Bronchial Adenoma” by Rozenman and associates (Chest 1987; 92:145-47) provokes a reaction. The authors are commenting about symptoms, signs, and age distribution, and other features of bronchial adenoma as if it were one entity. This is contrary to their own statement in the beginning of the review, that “bronchial adenomas are a heterogenous group of tumors.” Indeed, this group of tumors consists of several vastly different neoplasms. They are different pathologically, physiologically, and clinically.

Bronchial carcinoid accounting for 85 percent of all neoplasms in this group has a considerable malignant potential. In the experience of my colleagues and myself,1 lymphatic metastases were present in seven of 69 patients, in seven the tumor invaded extrapulmonary structures, and hematogenous dissemination occurred in four.

I have no appreciable experience with mucocoeplidnoid tumor, but it too has a marked malignant potential, and is called, appropriately, carcino. The term mucocoeplidnoid adenoma used by Rozenman and colleagues is incorrect.

Adenoid cystic carcinoma is always malignant.2 Local invasion is invariably present, as the tumor spreads along the submucosal plane and perineural lymphatic spaces. Penetration of adjacent organs and hematogenous metastases, particularly to the lungs, are common. Adjuvant radiotherapy in addition to resection is mandatory, if recurrences (very common) are to be avoided.

Bronchial adenoma is a misnomer applied all too often to various bronchial neoplasms implying a specific pathologic entity, while in fact these are biologically different entities. There is no pathologic relation whatever between the neoplasms under discussion. In addition, I object to the use of the term “adenoma” with reference to a tumor with any malignant potential, because it implies benignity. Adenoma, by definition, is a benign neoplasm. If, as stated by the authors “bronchial adenomas are all relatively low grade malignant neoplasms”, then they are not adenomas.

I suggest discontinuing the term “bronchial adenoma” with reference to this group of neoplasms. The term bronchial adenoma should be reserved for bronchial mucous gland adenoma, the only true adenoma of the bronchus.

Doc Weissberg, M.D., F.C.C.P.,
Department of Thoracic Surgery,
Edith Wolfson Medical Center,
Holon, Israel

REFERENCES

To the Editor:

Regarding the name bronchial adenoma, we agree with Dr. Weissberg that the term is actually a misnomer, as all these tumors are malignant as stated in our review! This name is however, still in use in the main textbooks such as Fraser and Pare.1

We commented on the heterogeneity of this tumor, although 90 percent belong to one group, the carcinoma, and can therefore be discussed together in our opinion.

We regret that we omitted the valuable article of Dr. Weissberg et al from our list of references.

Judith Rozenman, M.D.
Chaim Sheba Medical Center,
Tel Hashomer, Israel

REFERENCES

Predicting CO Diffusing Capacity

To the Editor:

In their recent paper, Harber and colleagues' point out an important problem using the Crapo prediction equations for single breath carbon monoxide diffusing capacity.1 These provide predicted values considerably higher than other equations in wide use, with the result that "many more persons are considered to have an abnormal diffusing capacity." Harber and co-workers reported 164 of 643 subjects with an isolated diffusing abnormality using the Crapo equation, vs only 34 using Cotes.2 Indeed, "the striking disparity demonstrated [26 vs 5 percent] probably underestimates the true situation because persons with abnormal spirometry were [not analyzed for normal diffusion and] many more persons will be considered 'abnormal' if the Crapo equations are used."

In publishing predicted values for DCO046 based on 582 subjects from a representative sample of a large population,3 we reported an increased frequency of "abnormal" results using Crapo values of the same magnitude as Harber's: 46 percent of the men were abnormal

Chest / 93 / 6 / June, 1988

1317
The authors are commended for providing data to document the problem with the Crapo D₂CO₂ equation. Their belief that these values "should not be uniformly applied despite [their] inclusion in both the American Thoracic Society and the American Medical Association recommended procedures for assessing disability" will be echoed by many pulmonologists and clinical physiologists responsible for this assessment.

Albert Miller, M.D., F.C.C.P.,
Director, Pulmonary Laboratory,
The Mount Sinai Medical Center, New York

REFERENCES
6 McGrath MW, Thomson MI. The effect of age, body size, and lung volume change on alveolar capillary permeability and diffusing capacity in man. J Physiol Lond 1959; 146:572-82

Diagnosing P. carinii

To the Editor:

The report by Israel et al.1 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, i.e., 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.4 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.5 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 case one, 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,6 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 (TBBx) 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 percent7,8 and the combination of BAL plus TBBx 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 (e.g., corticosteroids) require a more vigorous approach to establish an early diagnosis.

Maureen A. Connolly, M.D.,
University of Arizona Health Sciences Center,
Tucson

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. 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.