Communications

postoperative morbidity is highly significant between the two groups for both pneumonectomy (p<0.01) and lobectomy (p<0.001).

It is difficult to say that all the patients were maximally treated for their COPD before the surgical procedure. Recent cases have been probably much better prepared than the former ones operated on during and after 1970.

All the same, we would like to state again the aim of our paper, which some readers did not seem to understand clearly. It was not meant to deny the value of predicted FEV1, calculation, but to discuss the reasons for its inaccuracy in 23 percent of our patients.

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Vectorcardiography and COPD

To the Editor:

I have read with great interest the article of Lebowitz et al.1 The authors state firmly the validity of the vectorcardiographic examination (VCG) to evaluate the cardiovascular consequences of chronic obstructive pulmonary disease (COPD) and show several changes related to it.

I’d like to commend the detailed description of the data they obtained in their study, as well as the complete and careful statistical analysis presented by the authors. All this leads, in my opinion, not only to valuable conclusions from an epidemiologic point of view, but also to useful criteria for the clinician to improve and make easier the early diagnosis of COPD and of the associated changes in the pulmonary circulation and in the right side of the heart, and even the risk of developing these problems.

However, I would like to point out that a VCG parameter is omitted which, in my opinion, is very efficient for detection of overload/hypertrophy of the right ventricle. Furthermore, it can be easily measured and quantified, which is why it seems especially appropriate to analyze VCGs of great population samples, as was the case with the study of Lebowitz and coworkers.1

I am referring to the measurement of the different quadrants of the three planes (frontal, horizontal, and right sagittal) of the VCG as a percentage of the total area of each planar projection and, more specifically, of those which explore the terminal rightward QRS forces. They are easy to obtain and estimate, and their ability to detect early right ventricle hypertrophy have been emphasized by several authors** who have pointed out a good correlation with mean pulmonary artery pressure (MPAP) at rest.

My own results, included in my doctoral dissertation,† show that the percentage of the QRS loop area contained in the largest VCG quadrants right posterior of the H-plane (H3), or right inferior of the F-plane (F2) or right anterior of the H-plane (H2) (provided that its value is bigger than 15 percent of the respective area), has a very good correlation (r = 0.496, p<0.01) with the values of MPAP at rest in a series of 30 chronic respiratory patients. In this series, the VCG criterion “H3/F2/H2 (the greatest of them)>15 percent of the total area” identified patients with elevation of the resting MPAP (greater than 18 mm Hg) with a sensitivity of 94.5 percent and specificity of 75 percent.

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Theophylline Administration

How Often Is Often Enough?

To the Editor:

The relationship of the effect of theophylline to serum concentration has been extensively reviewed in multiple previous publications.1-4 The manuscript by Mangura et al5 describes mean (± SEM) serum theophylline concentrations that ranged from 7.4±1.2 to 15.5±1.6 μg/ml from a theophylline formulation administered once daily, while concentrations following twice daily administration of another formulation ranged from 10.6±1.6 to 12.7±2.2 μg/ml. The authors concluded that the 110 percent fluctuation of the mean serum concentration (mean peak 2.1 times higher than mean trough) during administration of the once daily formulation was comparable to the 20 percent fluctuation (mean peak 1.2 times higher than mean trough) during the twice daily dosing and that anhydrous theophylline may be administered as a single daily dose agent. Without disputing the authors’ assertion that theophylline may be administered as a single daily (or weekly, or monthly) agent if a prescriber wishes, I can only wonder what magnitude of difference in fluctuation the authors would have considered unsupportive of this conclusion.

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To the Editor:

We appreciate the opportunity to respond to Dr. Weinberger's comments. While a variety of opinions have been expressed on this subject, we believe (as others have written) that bronchodilation occurs when plasma theophylline levels exceed 5μg/ml. By this criterion, our patients achieved bronchodilation with both theophylline preparations at all times during the 24-hour protocol. By contrast, dissimilar peak-to-trough ratios imply a great difference in the efficacy of the two preparations. We believe this conclusion to be misleading. The percentage of drug absorbed, similar for the two preparations, is more indicative of the relative merit of these products.

Finally, except for unsolicited positive feedback, we did not address the issue of patients acceptance of the treatment regimen. Nevertheless, patient compliance is required for any product to be efficacious. The fewer pills a patient has to take, the more likely he is to take them.2

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Preventing Endotracheal Fires

To the Editor:

The neodymium-YAG laser is now being widely employed in both major referral centers and community hospitals for the treatment of lesions in the airway. This treatment is associated with a significant risk of complications, many of which can be minimized by careful selection of patients.1 Unfortunately, one avoidable complication, endotracheal fires, continues to occur. Nd-YAG laser bronchoscopy is no longer considered investigational by the Food and Drug Administration. Consequently, incidents of adverse reactions are no longer recorded by the instrument manufacturers. Nevertheless, the recent occurrence of fires is disturbing because reasonable precautions may be taken to prevent this usually catastrophic complication.

Casey et al2 first reported an intratracheal fire associated with Nd-YAG laser bronchoscopy. Subsequent experience has confirmed and extended our original recommendations. A clear operative field is essential for safety. The tip of the laser fiber must be kept free of debris. Unsheathed laser fibers which are designed for urologic procedures should never be used in bronchoscopy. Our laboratory investigations have demonstrated that fires can occur at virtually any oxygen concentration. However, above an FiO2 of 0.4, the risk is unacceptably high. Very close cooperation with the anesthesiologist and other personnel is necessary to control oxygen concentration and maintain alertness to immediately withdraw the bronchoscope and endotracheal tube in the event of ignition. Each second burning material is left in the airway increases the severity of injury.

Finally, the continued occurrence of endotracheal fires is a strong argument in favor of the open tube metal bronchoscope as the preferred instrument for laser bronchoscopy.

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REFERENCES

Never Order A Chest X-Ray
You Might Find Something

To the Editor:

In my medical community, I have been closely associated with chest x-ray films for over 35 years. As a beginning resident I was handed a roll of 70 mm employee chest films to read and became fascinated with the subject. I soon found that I was quite popular with the intern and resident population. A quick look at a chest film gave a very good picture of what this or that nurse looked like under the uniform.

Since that time I have served as an organizer and participant in tuberculosis mass survey programs; chief radiologist at a large tuberculosis sanitarium; consultant to government agencies, the legal profession, industry, and private physicians; and as an active member of the staff of a large teaching hospital.

I have read a minimum of 100 chest films a day, everyday, for the last 35 years. I have seen and continue to see conventional 14×17 chest films, 70 mm films, 100 mm films, 4×5 films, and many 35 mm micro films. I have made the following observations.

The routine chest film is a fundamental part of a patient's work-up, as much a part as a blood count or urinalysis, and is basic in medicine for the evaluation of a sick or well patient. There has been an inordinate amount of "noise" in the last few years in an attempt to get rid of chest films as a routine procedure in apparently well patients, and even in patient's with nonchest-related problems. I place these noisemakers in the radical fringe of medicine and feel that they should be given as much attention as any radical fringe political group. Anyone ordering a chest film is hoping for a diagnosis of

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