completely that most suction devices available today produce too little suction and have too low a flow capacity.

Charles W. Van Way, III, M.D.
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To the Editor:

In reference to the letter written by Dr. Van Way on the persistence of pneumothorax, Dr. Van Way made an extremely important point and focused attention on a situation where progress, that is, installation of wall suction, is really not improvement when one has to deal with the surges of air leak that accompany forced respiratory movements.

I would like to point out, however, that the diagram showing the classic three-bottle system as shown at the top of the illustration should be rearranged according to the middle figure or the tubing rearranged to coincide with the popular Pleur-evac arrangement as is shown in the bottom figure. The Pleur-evac, type A4010, has an atmospheric air flow meter which helps monitor the capacity of the vacuum which is applied to the chest bottle system.

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To the Editor:

Dr. Korompai is quite correct in pointing out that the configuration of the classic three-bottle system, as found, in the NCR system and in the Ohio system, differs from that utilized in the plastic molded devices such as the Pleur-evac. The difference is where one puts the trap bottle relative to the patient. Actually, Dr. Korompai’s second and third diagrams are equivalent in that the trap bottle is nearest the patient and the underwater seal is between the trap bottle and the source of suction. In these devices, the underwater seal chamber and the vacuum regulator chamber are connected in parallel to the wall suction outlet.

Charles W. Van Way III, M.D.

Fibrosing Alveolitis and Chronic Airflow Limitation

To the Editor:

A patient well-known to me has recently been reported in your journal as a case of idiopathic fibrosing alveolitis that progressed to chronic airflow limitation (Case 1). This patient is also included elsewhere as an example of eosinophilic pneumonia (case 2), and the author reports three patients with eosinophilic pneumonia, two of whom had bronchiolitis obliterans, and two with rheumatoid arthritis (the third patient had a positive rheumatoid factor). I should like to add my own perspective of this case.

I first encountered the case in a medical student self-teaching exercise shortly after arrival in Winnipeg in 1975. It was used as a typical example of idiopathic fibrosing alveolitis, but it appeared to be an example of eosinophilic pneumonia to me.

Some two years later, Dr. Charles Carrington, who was a visiting professor, was presented the case and he thought that it was most likely an example of bronchiolitis obliterans. Dr. Cooney re-reviewed the case recently because of our experience of finding a positive rheumatoid factor (or overt rheumatoid arthritis) in several patients with eosinophilic pneumonia and bronchiolitis obliterans. In retrospect, the patient had typical eosinophilic pneumonia with a chest roentgenogram showing peripheral infiltrates, blood eosinophilia and a rapid disappearance of the infiltrates and eosinophilia following steroid administration. In addition, the patient had a positive rheumatoid factor of 1/840. The biopsy is an interesting and difficult one. There is eosinophilic pneumonia, but it is only present in part of the specimen. There is obvious diffuse alveolar damage with type II cell metaplasia, large numbers of intra-alveolar macrophages and an interstitial pneumonia. Widespread bronchiolitis obliterans is present and there is interstitial fibrosis which is mild with general retention of lung structure without honeycombing. Both diffuse alveolar damage and bronchiolitis obliterans are well described in eosinophilic pneumonia and may be so dominant that cases can be
misdiagnosed as diffuse alveolar damage or fibrosing alveolitis. Dr. Carrington has re-reviewed the slides and agrees that this is an example of eosinophilic pneumonia with an unusual degree of bronchiolitis obliterans. The patient has also been included in another report as an example of acute fibrosing alveolitis.

It is recognized that patients with rheumatoid arthritis and eosinophilia are more likely to have systemic complications of rheumatoid disease, including lung complications. The levels of eosinophils in the blood are not recorded in the report by Geddes et al. of rheumatoid bronchiolitis, but two patients had pulmonary infiltrates and in one this was transient. No coherent hypothesis can be presented, but it appears that there is an overlap between rheumatoid disease, eosinophilic pneumonia and bronchiolitis obliterans. It also appears that while the lung infiltrate of eosinophilic pneumonia is rapidly reversible, the airway lesions are not. The development of chronic airflow limitation and the disappearance of lung infiltrates is not a common feature of fibrosing alveolitis and this occurrence should suggest an unusual condition.

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REFERENCES
1 McCarthy DS, Ostrow DN, Hershfield ES. Chronic obstructive pulmonary disease following idiopathic pulmonary fibrosis. Chest 1980; 77:476-77

To the Editor:

We are grateful to Dr. Thurlbeck for his comments.

The purpose of our paper was to report on the development of an obstructive pattern of ventilatory function following an "interstitial lung disease" of undetermined etiology characterized by a restrictive ventilatory pattern.

The histologic appearances reported on the patient showed alveolar changes compatible with those reported by other authors of papers on diffuse pulmonary fibrosis.1 In the light of undetermined etiology, it is hardly surprising that there is a diversity of pathologic descriptions in this group of diseases. We do not feel that the purpose and intent of our report is invalidated by the additional descriptive qualifications suggested by Dr. Thurlbeck.

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REFERENCE

IPPB, SMI, Gloves: Good or Bad?

To the Editor:

It is with disappointment that we read the report by Jung et al in the July, 1980 issue of Chest.

Our disappointment is twofold. First, the method of administering all three types of respiratory care was poorly designed. Second, despite this poor methodology, we feel the results of this study will be interpreted as further evidence for the lack of effectiveness of these respiratory care procedures.

The following questions occur to us about the methodology of the respiratory care maneuvers compared:

1) Why was the IPPB administered in a manner whereby peak pressure is arbitrarily set at 15 cm H2O and volumes are not even monitored? The authors recognized the importance of some volume goal with the incentive spirometer; why not with the IPPB? The importance of this volume-oriented approach is recently detailed by several authors.1-3

2) Why were the sustained maximal inspiration (SMI) maneuvers performed on a four times a day basis, supervised by a technician? It is our understanding that a major proposed advantage of SMI is that the patient can use it very frequently without the need for costly supervision.4

3) The resistance breathing (blow-glove) technique is subject to the same questions we raise about SMI. In addition it has a more questionable physiologic basis being a maneuver emphasizing exhalation instead of inspiration.4

We understand that the purpose of this study was to compare these maneuvers, as administered at the author's institution; however, we feel strongly that these methods, as described, do not reflect current thoughts on their proper application. We do not feel this type of study sheds new light on the relative efficacy of postoperative respiratory care procedures. It does point out the tremendous differences in the application of these procedures.

The question over determining the most effective method of applying these procedures, as well as identifying specific criteria patients should meet in order to receive them must be answered prior to further comparisons of relative efficacy. It is refreshing that this point of view was expressed in recent discussions at the National Institutes of Health-sponsored conference on "In-Hospital respiratory care of the non-critical care patient" (Sugarloaf II) held in Atlanta, Ga.

We do feel research as conducted by Jung et al has shown "routine" administered therapy to probably be ineffective. The real questions to be answered are: What is the "correct" way to administer respiratory care procedures to achieve specific clinical goals? What are the criteria a patient should meet to receive therapy? How can we objectively evaluate therapy to see if it meets our clinical goals?

If we answer questions similar to those above, then we can answer the question: Does correctly applied respiratory