Substitution of Metered-Dose Inhalers for Hand-held Nebulizers

To the Editor:

The choice of a nebulizer system should not be only a question of costs, as Bowton et al suggested in the February 1992 issue of Chest. Additionally, other objectives, such as ecological ones, should be considered. Recent studies, such as those of Bowton et al and others, indeed show that metered-dose inhalers (MDIs) are as effective as hand-held nebulizers and furthermore represent the cheapest way of administering aerosols to the lung. However, MDIs have some inherent problems: (1) they produce a great amount of disposable waste that cannot be recycled. (2) Metered-dose inhalers still contain propellants, which contribute to damage of the ozone layer and may cause side effects to individual patients. Until the development of new inhalation systems that avoid negative ecological effects and still are as cost-effective as MDIs, consideration of individual factors, rather than general recommendations favoring one system, should lead to a balanced decision on an inhalation system.

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REFERENCE


The Metered-Dose Inhaler Supersedes the Jet Nebulizer

To the Editor:

A large body of literature has developed to support the consensus that the metered-dose inhaler (MDI) should replace the jet nebulizer in hospital settings in view of its comparative therapeutic benefit and substantial cost-effectiveness. Pilot studies, and two recent reports from tertiary hospitals have now demonstrated the feasibility of converting from the nebulizer to the MDI, primarily in patients not being cared for in an intensive care unit. Following such a conversion, the predicted financial annual saving for the 449 hospitals in the United States that have bed capacities over 500 (according to American Hospital Association figures for 1990) amounts to $37,000,000, with a reduction in patient charges of $134,700,000. These figures are based on an annual hospital saving of $85,000, and a lowering of patient charges of $300,000. Others estimate hospital annual savings of $3,000, $43,758, and $250,000. Actually, since there are also 6,200 hospitals in the United States with a bed capacity of less than 500, there is an even greater potential saving nationwide. Additionally, the time required by respiratory therapists to administer aerosol therapy is significantly reduced.

Nevertheless, a considerable amount of skepticism continues to exist, and we must be concerned with the possibility that inappropriate preliminary use of the MDI will hinder its acceptance or even lead to adverse outcomes. The most serious question raised by the doubting Thomases concerns the effectiveness of the MDI in treating critically ill patients in the emergency room and the intensive care unit. Settlement of this matter will require clinical studies to evaluate the efficacy of higher-dosage MDI regimens of beta-agonists and the optimal modes of delivering MDI therapy to patients on ventilators.

These facts suggest that there is an urgent need to carry out further studies evaluating MDI therapy in all hospital areas. Eventually, an authoritative committee report outlining accepted guidelines for making this conversion should be forthcoming. In this way, hospitals of all sizes will be able to institute this most cost-effective measure in a manner that will provide the best patient care.

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REFERENCES


Cough Syncope Induced by Enalapril

To the Editor:

It is well recognized that cough is commonly encountered in patients receiving angiotensin-converting enzyme inhibitor. Generally, it is considered to be a minor side effect, which subsides with cessation of the offending agent. We report the case of a patient who not only developed cough due to enalapril, but also suffered an episode of cough syncope. A 55-year-old businessman was placed on a regimen of enalapril for essential hypertension. He was a lifetime nonsmoker, with no past history of rhinitis, asthma, or chronic respiratory illnesses. Within a few days, he developed a persistent dry cough, which did not respond to bronchodilators and antihistamines prescribed else-
Primary Pericardial Liposarcoma Presenting With Cardiac Tamponade and Multiple Organ Metastases

To the Editor:

Primary liposarcomas of the pericardium are extremely rare.1 We would like to report a primary pericardial liposarcoma showing myocardial invasion and widespread metastases.

A 22-year-old man with a 2-week history of headache and progressive difficulty in breathing was hospitalized. A chest radiograph showed an enlarged cardiac shadow and multiple heterogeneously infiltrations of the lungs. The ECG was characterized by a low voltage and inverted T waves. An echocardiogram showed a large echogenic tumor mass surrounding the heart. A computed tomographic (CT) scan of the thorax showed multiple infiltrations in the lungs, marked cardiomegaly, and a low-density irregular tumor mass surrounding the heart.

On the second day after admission, a generalized seizure occurred, and a cerebral CT scan showed multiple, large, hypodense areas in the left temporal and occipital lobes. On the fourth day after admission, the patient died of a respiratory arrest.

At necropsy, the heart was surrounded by a large (17 × 15 × 11 cm) multinodular, mucoid, green-yellow mass encapsulated by the pericardium (Fig I). Nodular implants were also found over the ascending aorta, in the posterior sternal area, and on the chest wall. Extensive metastatic deposits were noted in the brain, lungs, liver, kidneys, and supravacuicular and axillary lymph nodes.

Microscopically, the outstanding features were the presence of atypical lipoblasts in varying stages of differentiation, a prominent plexiform capillary pattern, an abundance of myxoid material, and large areas of round-cell differentiation with abundant mitotic figures. The symptoms in our patient appeared only 2 weeks before hospital admission and were followed rapidly by cardiac tamponade. This observation shows that pericardial liposarcoma can reach a significant size before the development of clinical symptoms. Ordinary liposarcomas metastasize, in general, late in their course following local recurrences. Round-cell liposarcomas may disseminate more rapidly. The occurrence of widespread metastases in our case can be ascribed to the presence of a round-cell component. It is also possible that, for unknown reasons, some cardiac liposarcomas behave more aggressively than their soft-tissue counterparts.

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