CORRESPONDENCE

Dear Madam,

It behoves me to write to you concerning certain basic principles involved in the administration of inhalation therapy/nebulization which appear to have been overlooked by certain of my colleagues in this country. Firstly one should, I believe, see this treatment modality as only having a small role in the gamut of physiotherapy modalities used in a treatment session. Nebulization of saline or of a drug is purely a means to an end. The rest of the treatment modalities, such as breathing exercises, coughing instruction, postural drainage, vibration, shaking, postural correction, exercises for mobility and to improve physical fitness and counselling are absolutely essential to treatment and cannot be forgotten. It seems that inhalation therapy/nebulization is being seconded to non-professional staff/aides because of so-called "staff shortage". This is a poor excuse because if nebulization is to be of any effect it must be expertly administered whilst the patient breathes correctly and to train a patient to breathe correctly certainly needs some expertise! In addition, aides have no gazetted scope and if they administer inhalation therapy in an area prescribed for physiotherapy they are practising illegally.

Secondly, physiotherapists are neither capable of prescribing nor allowed to prescribe medication for the purposes of nebulization. The medication should be prescribed by the referring medical practitioner.

I trust that these few words of warning will be heeded and refer to Government Gazettes No. 5349 and 5811 where the prescribed areas are promulgated and to Government Gazette No. 4525 where the scope of the profession of physiotherapy is defined.

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Geagte Mevrou,

Ek het die volgende brief van 'n kollega ontvang:

"Na aanleiding van die telefoongesprek, die volgende besonderhede: Die maak van die droë yspakke is Col-Pac, Hydrocollator: Chattanooga Pharmacal Co. (Chattanooga, Tennessee 37405, U.S.A.)

Na 2 of 3 dae se aanwending is 'n verharde verkleurde reaksie gevind (10 minute sessies per behandeling).

In die afgelope 1 jaar 2 maande het 5 pasiënte hierdie reaksie gekry. As die hoeveelheid pasiënte wat ysbehandeling kry in ag geneem word, is dit seker 'n persentasie van ± 15-20%. Dit is slegs verkry by donkerkleurige rasse, nl. Damaras, Ovambo's en Herero's.

Die nuutste geval kan as voorbeeld geneem word:

Na 2 ysbehandelings is die reaksie gevind oor vastus medialis en biceps femoris. Laasgenoemde was minder pynlik en ultralank (0,75 w/cm² kontinu vir 5 minute) is slegs oor die ant-med. aspek gegee, wat dan die volgende dag baie minder pynlik was as die post-lat. deel wat nie ultraklank gehad het nie. Na 2 verdere ultraklank behandelings oor beide areas was daar geen pyn post-lat. nie, maar 'n harde subkutane rif ± 2½ cm. breed en ± 8 cm. lank het ant-med. net pynliker geword (veral by loop en met betasting).

Diadinamiese strome is oor die gebied gebruik. Na 1 behandeling was daar oombliklike pynverligting en die volgende dag minimale pyn. Na die 2de behandeling was geen pyn teenwoordig nie, selfs met harde druk. Die rif was egter nog teenwoordig, howel sagter."

Het enige fisioterapeut soortgelyke ondervindings gehad? Ek sal dit baie waardeer indien hulle enige soortgelyke gevalle aan my kan rapporteer asook enige menings wat hulle omtrent bogenoemde het.

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Dear Madam

Recently members of the Southern Transvaal Branch of our Society had the pleasure of hearing a lecture by Miss Gaskell, of Brompton Chest Hospital. I was pleased to hear her emphasise that ventilator therapy by physiotherapists should be carried out only under the guidance of medical practitioners experienced in their use.

Many physiotherapists are regularly using ventilators in the treatment of their patients, and one must take leave to question whether they are always fully conversant with the details of pulmonary physiology or whether they are fully aware of the potential dangers of such treatment.

On a number of occasions I have been involved in the treatment of patients who have had to undergo pulmonary surgery after the over-zealous use of ventilators had resulted in rupture of emphysematous bullae. The sad thing is that the physiotherapists who use the ventilators probably did not even hear about the disastrous effects of their well-meant treatment and most likely still continued to treat all "chest" patients in the same way irrespective of the basic lung condition.

I wonder whether this type of therapy is not often an easy substitute for pulmonary physiotherapy which is time-consuming and requires the full undivided attention of the therapist for the whole treatment period. More stress, in my opinion, should be laid on the fact that *nothing* can replace active breathing exercises, coughing, and, after thoracic surgery especially, chest-wall mobilization. Ventilator therapy can only be an adjunct to such treatment by reason of its ability to deliver nebulized bronchodilator agents and mucolytic agents.

However, Miss Gaskell and some members of her audience pointed out that research has shown that the amount of the nebulized drugs reaching the terminal respiratory passages is in fact very small, and therefore one wonders whether the improvement ascribed to the use of the ventilator may not perhaps result from any other forms of treatment the patient is concurrently receiving. May I in this respect draw your readers' attention to a letter from S. H. M. Blackwood in the March 1978 issue of our Journal.

Ventilators are seldom used in the thoracic surgical unit to which I am attached. Over a period of twenty years I have been associated with five thoracic surgeons, none of whom ever required me to treat a patient with a ventilator.

In our unit the use of ventilators is confined to immediate postoperative support in some cases of open-heart surgery, until arterial oxygen tension is normal;

to cases of intractable bronchospasm and to cases of severe sputum retention.

I have often found that patients who use the ventilator several times per day, especially with mucolytics, tend to have a tremendous increase in fluid secretions causing severe embarrassment of alveolar gas exchange. This suggests that ventilator treatment should cease as soon as the patient is capable of responding to conventional physiotherapy.

In those few patients for whom ventilator therapy is indicated, they are taught to use the ventilator by qualified nursing staff under medical supervision, and I instruct them to alternate their hourly breathing exercise routine with their ventilator sessions. This regime is quite separate from the two to three formal physiotherapy treatments per day in the early postoperative period.

In the twenty years of my experience cases of respiratory failure have been very rare. I am convinced that the reason for our good results is that we rely not upon "gadgets" but upon solid, old-fashioned breathing exercises, coughing, chest-wall mobilization, a small amount of postural drainage and occasional percussion of the chest-wall. The great secret, however, is willingness to devote sufficient time to make the treatment work.

It has been suggested to me that I manage without ventilators because I treat thoracic surgical cases and not thoracic medical cases. I must correct this misapprehension. Who are the patients who come for thoracic surgery? Are they not the patients with bronchiectasis or silicosis? Are they not the heavy smokers with progressive emphysema who have developed pulmonary malignancies? Are they not the patients whose lung fields have been destroyed and their vital capacities reduced by pulmonary cysts? Are they not the patients with festering, space-occupying lung abscesses resulting from neglected pneumonia? Are they not the patients with lungs scarred by tuberculosis? Are they not the patients with chronic valvular heart disease with lung complications?

What could be more "medical" than such surgical cases?

In conclusion, I do not wish to condemn the use of ventilators which undoubtedly have their value; but such mechanical aids cannot replace the application of sound knowledge, conventional techniques, a sufficient expenditure of time, and the hard-won skill of the physiotherapist.

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