LETTERS TO THE EDITOR

Hospital Road,
Ramputs 458118,
Mandsour (MP),
INDIA,

Dear Sir,

In the June-September 1979 issue of the Journal Dr Dries Jones reported "Discussion of a case of Pulmonary Barotrauma". I find some of the aspects of treatment puzzling.

1. There is no mention of the IV infusion regime, which all authorities now recommend as an adjunct to the treatment of neurological decompression sickness.

2. Why was a diuretic given as almost inevitably a diver is dehydrated when he emerges from the water?

3. The administration of a diuretic to a patient with a paraplegia without the precaution of catheterization is surprising. In this man it led to 2 hours of the symptoms of urinary retention which are highly uncomfortable if not more accurately described as acutely painful. The physiological changes accompanying pain, vasoconstriction and sweating, can hardly help with the elimination of inert gas.

4. I think that the man was allowed to resume diving too soon. It is known that the neurological scars of the illness increase susceptibility for further neurological incidents. There are even some centres where a man would be prohibited from diving again.

Yours sincerely,
MY KHAN

A copy of this letter was sent to Surgeon Captain Jones, whose reply is printed below.

Navy Medical Centre
Simonstown
Republic of South Africa 7995

Dear Sir

As regards to Dr. Khan's letter some background information seems necessary. This accident happened during September 1975.

At that stage no guidelines for medical ancilliary treatment for decompression accidents were laid down at our diving school.

Due to various unsatisfactory aspects in the management of the case a broad regimen of treatment has been drawn up.

This regimen is at presently under review. The relevant portions follow.

6. DECOMPRESSION ACCIDENTS

a. General

i. The call for medical treatment for a decompression accident will take one of two forms:

(a) The diver has already been transported to a two-compartment chamber and full therapeutic decompression facilities will be available.

(b) The victim will be within 5 hours travelling time from a two compartment chamber. Preliminary medical care and resuscitation will be needed before transport to the chamber.

ii. If the patient is transported in an ambulance he may under no circumstances receive Entenox: Entenox increases the bubble size, aggravating the condition.

iii. Decompression accidents might be complicated by hypothermia and/or near-drowning. In these circumstances concurrent treatment for these and the decompression accident will have to be carried out In priority to severity.

b. Specific treatment for cases away from a two-compartment chamber:-
(NB. The treatment (from 6.b.i. to 6.b.ix) is for all serious cases of decompression sickness and air embolism. Type I cases - where pain is the only symptom present - only 6.b.i., 6.b.iv., and 6.b.viii.)

i. Let the diver inhale 100/per/cent oxygen from the resuscitator; this tends to hasten the inert gas elimination from the body.

ii. The diver would already have received the following medication (see 2.b.);
- Valium 5mg - 2 tablets
- Soluble Aspirin 300mg - 2 tablets
- Vitamin C 250mg - 2 tablets
- Methyl Prednisone (Medrol 16mg) - 2 tablets.

iii. In the case of the unconscious diver:
- assure a clear airway
- assist ventilation if indicated
- assist cardiac function if indicated.

iv. Put up a reliable intravenous line and start infusion with Dextran 40
- First Vacoliter (500ml) to run in 30 minutes
- second Vacoliter of Dextran 40 during the next 30 minutes and
- third Vacoliter of Dextran 40 after 6 hours, to run in within 2 hours.

v. Administer Dexamethasone 100mg intravenously through the tubing of the Dextran drip (decadron Shock