

to 3000 psi. A 'hang' tank was located at 5 metres. I was down to 1500 psi at the start of the ascent, 730 psi at 5 metres and I surfaced with 180 psi left. I could have switched to my reserve tank, but was curious to see if I could complete the dive on one tank.

I suppose the moral of this story is that you can do reverse profile dives safely, but you pay for it with long decompression times and a high residual nitrogen level.

W F Brogan
City Beach, W A

Reference

- 1 Williams G. Reverse dive profiles. *SPUMS J* 2002; 32: 109-110

Reply

The presentation re reverse dive profiles related to the blanket prohibition of reverse dive profiles – reverse dive profiles may not be always the most efficient use of dive time. The recommendations relate to dives less than 40 metres and differentials less than 12 metres – divers need to plan repetitive dive profiles to make the most efficient use of dive time.

Guy Williams
Rosebud Medical Centre, Victoria

Editor's note:

The sequence of dives described by Dr Brogan is outside that usually associated with recreational scuba diving.

Neurological symptoms developing while diving

Dear Editor,

We were interested to read the article by Bateman and Sawyer¹ reprinted in this journal (*SPUMS J* 2002; 32: 60). In this brief case report, a single MRI film of the cervical spine of a young woman who suffered presumed decompression illness whilst diving in Egypt, is presented. The report notes that she had an unsustained improvement in her neurological symptoms and signs with recompression therapy. The report goes on to say that on the basis of this MRI, a diagnosis of transverse myelitis was made and the patient then treated with steroids.

There are a number of issues that this case raises.

First, the MRI appearances of cervical spine lesions in decompression illness are characteristically lenticular in appearance, as is the one demonstrated, and often occupy several dermatomes, as is also the case here. It has been

our experience that where significant lesions like this are present, there are almost certainly other lesions within the central nervous system, either in the lower spinal column or within the cranium. It would be interesting to know whether such multiple lesions were present, since this would exclude a transverse myelitis of a non-diving aetiology. Without that additional information the diagnosis of a non-diving transverse myelitis cannot be made.

The second issue is the one of recompression therapy. We do not know whether this was a single treatment, what type of treatment was administered and whether there was any follow-up hyperbaric therapy. In our experience, it is not uncommon for signs and symptoms to relapse to some degree in severe cases, even following an extended Royal Navy Table 62 or other major initial hyperbaric treatment. A varying pattern of gradually diminishing neurology is one that would be familiar to all those who have treated this condition. Therefore, neither the relapse nor indeed the supposed response to steroids precludes the diagnosis remaining that of decompression illness.

We remain unconvinced by the data presented that this woman suffered from anything other than neurological decompression illness.

F Michael Davis
Medical Director

D Boon von Ochsee
Specialist Anaesthetist
Hyperbaric Medicine Unit, Christchurch Hospital, New Zealand

Reference

- 1 Bateman RM, Sawyer RN. Neurological symptoms developing while diving. *Brit Med J* 2001; 323: 242

Medical conditions and diving deaths

Dear Editor,

The strongly-worded statement regarding medical conditions, specifically asthma, and their contribution to scuba diving fatalities made by Davis et al¹ cannot be allowed to go unchallenged. The authors base their statement on the presence of medical conditions established by history or at autopsy that were "believed to have contributed to the death". No data are given in the paper, however, as to the basis of this belief and the authors could not supply me with any further details when I contacted them. These details are apparently simply not available.

The problem here is that the argument is a circular one. Suppose one believes that the human foreskin is an important route of nitrogen excretion. One then would