

Dr A Reid

In Rabaul we have used this equipment to treat a diver. Luckily we had had a few practice sessions, otherwise we would have had trouble.

There are a few things that I would like to share with you. You must have an organisation. If somebody gets bent in a place like this it is hard to get hold of people. We have to have three or four people who know all the organisation, and who can round up people and equipment. The only place we can do in-water oxygen recompression is a certain dock in the harbour. We have to get the Harbour Master to open up the dock. We have all this worked out ahead of time, otherwise when you do have somebody in trouble, you are going to be chasing all over town getting things organised. You must have a master list of your staff. You have to have somebody in charge of the operation (who is not the doctor at the site) who manages all the equipment and stuff, and the people going in and out. It is enough for the doctor just to think about the patient. We use a breeches buoy from a sailing boat instead of a rope for the patient. It is much more comfortable. We hang the weights on the bottom of the breeches buoy.

Although timing sounds simple here, we had distractions from people coming and going. So we have one person in charge of timing. He is also the person who tells how many feet to come up at each time interval. You have to have your rope properly marked. You must have exactly the right number of markers on it. You can easily get confused after five or six metres. The person who is timing has to have a proper sheet to write everything on. We found that people get cold and hungry, so hot drinks and things like chocolate bars are very helpful for the attendants. If it gets dark, as it does here at six o'clock, you have to have lights. Two or three lights are required. We have two or three people going up and down communicating and one person with the patient. So there was a communicator at the bottom if they wanted to send a message up, and there was a communicator on the surface to send a message down. They rotated. They also had slates and pencils either to play noughts and crosses with the patient or to give communications from the patient.

I think the most important thing that I have found is that you have to have practice. It is not simple. It is simple in theory but there are a million things that can go wrong. Connections that do not fit the oxygen cylinders, something does not work, something else is broken. You should get together every now and then and practice. I found that this practice was very, very helpful.

Dr John Knight

That reminds me that I forgot to mention the great contraindication to this treatment, cold water. If you have got a cold diver and you put him back for another three and a half hours, you have got a hypothermic, very sick diver

on your hands. Carl Edmonds designed this equipment for places where you could not get to a chamber quickly. Quickly meant about twelve hours. In Madang, unless there happens to be a Lear Jet at the airport, to get a bloke to the nearest chamber, which is at Townsville, you have got to fly the RAAF or a Lear jet from Australia to here, and then back to Australia. By which time you may well have made the man better by putting him back in the water.

Hypothermia is a very real contraindication to this treatment. When I am asked by people in Victoria and New South Wales whether they should buy these kits, I say very firmly that they should not. They are only useful in warm water. Heron Island is not warm enough, because they had to abandon one treatment at Heron Island, because the patient said he was too bloody cold and that he was coming up.

Dr Carl Edmonds

It does work OK in the Antarctic. All you need is oxywelding equipment. Use the oxygen regulator from that and industrial oxygen. Anyone who has an oxywelder could do the job very well. You do not have to use diving equipment to make it. We used an oxywelding regulator in the Antarctic and it was actually more effective than the

#### SALT WATER ASPIRATION SYNDROME MISDIAGNOSED AS OXYGEN CONVULSION

Carl Edmonds

There is one thing that worries me. I have noticed that people are using a case reported in the SPUMS Journal (Oct-Dec 1981, p23) to claim that there was a convulsion on oxygen at 9m. I do not doubt that you can convulse on oxygen at 9m, obviously it can happen. The original work done by Haldane has a report of a diver who did.

However, that case report is a terribly bad case report and if you are going to use oxygen toxicity as an argument, you should not use that case. The man firstly had salt water aspiration syndrome before he went on oxygen which means that there is no way he could have got his arterial oxygen up to normal let alone hyperbaric oxygen levels. They had to treat the man for salt water aspiration afterwards, which shows how seriously ill he was.

I think that what was described was something that they would have recognised, had they had a bit more experience, as a rigor from the salt water aspiration syndrome, not an oxygen convulsion. That case report should not be used by anyone as a case of oxygen convulsion.