

1969; 158: 506-512.

5. Hickham JB and Frayser R. Studies in the retinal circulation in man. *Circulation*. 1966; 33: 302-316.
6. Gronvall H. On changes in the fundus oculi and persisting injuries to the eye in migraine. *Acta Ophthalmol*. Copenhagen, 1938; 16: 602-611.
7. Margolis G. Hyperbaric oxygenation: the eye as a limiting factor. *Science*. 1966; 151: 466-468.
8. Kobayashi T and Murakami S. Blindness of an adult caused by oxygen. *JAMA*. 1972; 219: 741-742.

EDITOR'S NOTE

The authors made a MEDLARS search of the literature before writing their paper and were unable to discover any medically reported cases (as contrasted with medico-legal cases, where a judge decides) of blindness following hyperbaric oxygen therapy. Any readers who know of cases of blindness following short term hyperbaric oxygen therapy in adults are asked to communicate with the authors.

Dr Karin Herbstein is an ophthalmic surgeon in Sydney (231 Macquarie Street, Sydney NSW 2000). Dr John Murchland is Head of the Retinal Unit at the Royal Adelaide Hospital.

AN UNRECOGNISED BEND

A case report and comments based on the records of the New Zealand Underwater Association

Douglas Walker

The victim was a 38 year old male who had spent several days diving to 20-30 feet, undertaking 2-3 dives a day, on the East coast of the North Island. On the morning in question he had dived at 30 feet for about 90 minutes. He then surfaced and went by boat to a spot where he had been told the depth was 70 feet. He dived to a depth he felt was in excess of 100 feet for about 10 minutes but he had neither watch nor depth gauge. He then made a rapid ascent to 15 feet where he spent a few minutes before surfacing.

Later that day he drove to an inland town which was at an altitude of 1200 feet. On arrival he noticed some numbness and tingling in his feet and felt cold. The next day he returned to the coast and had a shallow dive, to 20 feet. However his symptoms persisted, so he consulted a local doctor. The doctor told him he had "A touch of the benz" and should come back if he felt dizzy.

He then returned home, where he sought the advice of another doctor. This practitioner told him he had "a bit of a bend" and he was reassured that he would get better. He then advised the victim to go for a deep dive in the nearby Lake Taupo, to go to 100 feet and come up in stages. Six days after the initial onset of symptoms the victim carried out a decompression dive, using a marked line, in fresh water to 100 feet. There was no improvement in his

condition.

Several days later his employer, himself a diver, contacted the medical team on duty at the Devonport Naval Base. Their opinion was that it was unlikely to be decompression sickness (DCS) and that recompression would be of no value to him at this late stage even had the problem been DCS. He again consulted his own doctor and fourteen days after the onset of his symptoms he was referred to a Base Hospital for investigation. Subsequent neurological investigations were stated to reveal that he was suffering from a condition which is not related to diving and that his problems were not therefore caused by decompression sickness.

COMMENT

This report is submitted for several reasons, the most important being to remind divers of the critical importance of safe diving procedures. Such includes an intelligent awareness of the diving related problems which can occur, married to a (cynical?) awareness that THEY (the divers) may have to both make and defend any diving medicine diagnosis. The following Critical Points in the story are identified as a basis for consideration:-

1. The diver was careless in having neither watch nor depth gauge and nevertheless diving in an unknown-depth area. There is nowhere any mention of a buddy and the probability arises of this being an "experienced" but "can do" type of diver. A rapid ascent increases the risk of DCS.
2. The onset of symptoms after arriving at altitude was significant.
3. The doctor told him he had "benz". It was HIS (the diver's) responsibility to get informed advice as the symptoms indicated the possibility of spinal DCS. As every diver knows, recompression is the specific therapy. Like most divers he did not apply this information to himself.
4. The second doctor told him his symptoms would get better and that he should treat himself by a "therapeutic" dive to 100 feet in the lake. The diver should have been aware, even if the doctor was not, that such attempts at treatment almost invariably worsen the problem. He should at this stage have been completely aware of the need to contact Devonport Naval Base and done so on his own initiative. He does not seem to have discussed his troubles with any other divers.
5. His employer was the first to take the correct course of action. It is not known what tale the victim presented to the Naval Base over the phone but many diving doctors would advise a trial of recompression even at such a late stage for a possible spinal bend.
6. Neurological investigations would reveal the results of spinal cord damage, not the actual cause. With respect to the neurologist, unless he was aware of diving-related CNS problems his opinion on such matters would be secondary to the history-supported probability of DCS.