

LETTERS TO THE EDITOR

NON-DIVING NEUROLOGICAL PROBLEM IN A DIVER

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Dear Editor

The reprinted case report on carotid artery occlusion following a dive¹ reminded me of another interesting neurological case in a diver. A professional diver in his early 40s, whom I had been seeing for his annual medical for some years, came for his 2001 medical with a fascinating story. While working offshore he had developed transient ischaemic attacks (TIAs) which were not related to his dives. After several episodes of mild hemiparesis he was investigated by a mystified medical team before his relevant past history became apparent. Some years before he had been in the armed forces and did a spell of active duty in Northern Ireland when he had been shot in the neck. The bullet was removed and he made an uneventful recovery but seemingly the carotid artery had been permanently scarred allowing a plaque to form over the years which began to generate emboli. Carotid ligation stopped his symptoms and he has successfully returned to diving and had no further symptoms.

Peter Glanvill

Reference

- 1 Hughes PJ. Internal carotid artery occlusion following sports diving. *SPUMS J* 2001; 31 (4): 238-240

Key Words

Case report, injury, letter, medical conditions and problems, trauma.

JACQUES MAYOL

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Dear Editor

I thought it would be appropriate to draw members' attention to Jacques Mayol's obituary which appeared in the Daily Telegraph on January 10, 2002 here in the UK and from which much of the following is extracted.

Jacques Mayol was born in Shanghai in 1927 to French parents and spent the first 13 years of his life in Asia. He first became interested in diving on family holidays in Japan and was undeterred when his father died in a diving accident. As a young man he won several European contests among free divers who would cling to weighted, falling sleds and were judged purely on how deep they were able to fall. The contests were suspended after a number of participants died.

With his Italian rival Enzo Maiorca, Jacques Mayol continued to extend the boundaries of free diving, descending to 60 m off the coast of Miami in 1966, then 100 m 10 years later, the first diver to plunge so deep. He gave up diving in 1983 after he had set the world record for free diving, aged 56, by descending to 105 m, a feat of endurance which was not beaten for 13 years.

In 1984, the film director Luc Besson approached Jacques Mayol about making a film centred on his rivalry with fellow free diver Enzo Maiorca. The film, *The Big Blue* (1988) starred Jean-Marc Barr as Mayol.

His own publications include *L'Homo Delphinus – The Dolphin Within Man* (1983) and a novel, *Les dix rois de la mer* (1989). His recently published *Heritage des Peuples de la mer* describes his dives among the undersea ruins of the Yonaguni island.

Jacques Mayol died on the island of Elba aged 74.

I first became aware of Jacques Mayol's achievements in 1974 when I was working for an international deep diving company based in Italy.

It was also with this same company that in 1976 I was the Medical Officer for the Eastern Hemisphere's first commercial 300 m dive from a semi-submersible drilling rig off the west coast of Mainland Shetland. The magical imperial equivalent for this dive being, of course, 1,000 ft.

I instructed the diver and the bellman in some basic clinical observation techniques which I would be asking them to carry out just before commencing the dive.

"Oh, you don't have to worry about me," protested the diver, "I was one of Jacques Mayol's disciples".

He then proceeded to tell me about the yoga and meditation techniques which he had been taught by the maestro which included psychogenic negative feedback to the cardiovascular system causing a slowing of the heart rate and "negative pressure breathing" which resulted in fluid transfer, venous in particular, into the thoracic cavity.

Incidentally, the term “disciple” was, I believe, used by Jacques Mayol himself to describe any of his students or followers of whom there were many over the years.

In the event, when I asked the diver and the bellman to make their observations just prior to their transferring to the bell and making the dive, the diver found the bellman’s pulse rate to be about 80 bpm and the bellman noted the diver’s to be 150 bpm or so!

I was able to relate this story to Jacques Mayol when I met him in 1982, in Marseille. He was very interested to learn what had happened but as you might imagine, he was not best pleased about his disciple’s performance.

Another area in which he developed a passionate interest, which is not mentioned in the obituary, was “birthing into water”. As I recall, he told me he had spent quite some time in Moscow and the United States working with the obstetric believers and expectant mothers promoting his enthusiasm for this technique.

As far as free diving in Australia is concerned, my experience is limited to scuba diving alongside breath-hold divers off the Abrolhos Islands in Western Australia. These were non-assisted free divers who competed not so much on the basis of the depth they were able to dive to but rather their ability to catch a prescribed variety of fish using their

harpoon guns. Nevertheless, these fellows who were members of the West Australian free dive team, were able to dive repeatedly to considerable depths in pursuit of their quarry.

I am not aware of any sled-assisted breath-hold diving in Australia of the type championed by Jacques Mayol but if there is and any SPUMS members are aware of it, I am sure the rest of us would like to hear about it.

Nigel I P McKie

Key Words

Breathhold diving, history, letter, records.

Editor’s comments

I cannot enlighten Dr McKie about Australian competitive breathhold diving.

However in the January 2002 issue of the British magazine **DIVER** (Vol 47 (1): 14) there is a story about Umberto Pelizzari achieving a new variable ballast (sled assisted descent with the return either finning or pulling oneself up the descent line) breathhold record dive to 125 m, which lasted for 2 minutes and 44 seconds, in November 2001.

BOOK REVIEWS

NOAA DIVING MANUAL

Divng for Science and Technology. 4th Edition.

ISBN 0-941332-70-5.

Soft cover

Best Publishing Company, P.O.Box 30100, Flagstaff, Arizona 86003-0100, U.S.A.

Price from the publishers \$US 79.50. Postage and packing extra. Credit card orders may be placed by phone on +1-520-527-1055 or faxed to +1-520-526-0370. E-mail <divebooks@bestpub.com>. Also available in hard cover (\$US 89.50) and as CD ROM (\$US 89.00)

At 2.7 kg and over 550 pages, this text qualifies for the description “a weighty tome”. You also need a weighty purse to buy it. NOAA stands for National Oceanic and Atmospheric Administration and is part of the US Department of Commerce. As a group, NOAA employ over 300 divers who conduct more than 10,000 dives/year. The aim of the manual is to provide guidance on safe diving practices for their employees, who are mainly operating as scientific and research divers. In most areas I think the manual succeeds in meeting this aim.

Because it is written for people who will be operating in a partly self-regulated environment the manual gives some of the reasons behind their rules and recommendations. This should make it more useful to SPUMS members than a navy manual, where “thou shall not do - -” is often the statement and the end of the argument is “because the book says so”, with no explanation.

All the expected parts of a diving manual are there: Physics, physiology, equipment etc. There are chapters on training, dive planning and procedures. These cover environments like rivers, dams and caves as well as normal open sea diving. Some of these topics that may be new to most readers. I found the suggested procedures for mid-water diving interesting. These include the use of a line system to keep the divers linked to the surface. A single down line from the surface is linked to individual tether lines that feed out and retract because there are weights at the other end of the tethers. This seems a logical way of reducing line tangles. Other procedures for scientific diving cover topics like mapping, bottom sampling and even the collection of fish using anaesthetics. Pharmacologists may be interested to know these include benzocaine and chloral hydrate.