

GLEANINGS FROM MEDICAL JOURNALS

DIABETES

Scuba diving and diabetes; collecting definitive data from a covert population of recreational divers. Interim observations from a long term on-going prospective study. Bryson P, Edge C, Gunby A and St Leger Dowse M. *Undersea Hyperbaric Med* 1998; 25 (Suppl): 51-52

Abstract

Background

Our understanding of the effects of scuba diving on diabetes or the effect of diabetes on a divers ability to dive safely is minimal. The UK Sport Diving Medical Committee allows diabetic divers, who are well monitored and controlled, and who submit themselves for an annual medical, to dive.

Method

In 1991 a data base of British recreational diabetic divers was initiated. A questionnaire was designed which sought to establish the diving activity, health, diabetes control and management, any diving incidents relevant to diabetes, and frequency of a diving medical. Since 1991 the questionnaires have been circulated to medical practitioners, diving medical referees, diving organisations and to diabetic divers. With an *estimated* 90,000 recreational divers in the UK and an estimated 3% (2.5% known, 0.5% unknown) of the UK population suffering from diabetes, a theoretical upper limit to the number of diabetic divers in the UK could be >2,700 and a lower limit could be as high as 500 (at present there are no data on the total numbers of divers with diabetes).

Results

Data from 2,478 dives by 155 diabetic divers (20% females and 80% males), with a mean age of 38 years (16-63) demonstrated that divers, known to the study and suffering from diabetes (13% NIDDM and 87% IDDM), logged an average of 15 dives per year, compared with an estimated UK recreational diver average of >30 dives per annum. Only a small nucleus of respondents have consistently logged >40 per annum. The respondents did not dive continuously year on year. Annually our data shows 38% of diabetic divers are new to the sport, reflecting trends of the diving associations. The majority of the total respondents reported they were under the care of a hospital. However, our data showed 19% had either not had a medical in the last two years, or failed to give the date of their last medical at all, implying their diving medical was not in date.

Conclusion

Our study suggests that gathering definitive data from recreational diabetic divers is a long term project which

needs careful and thorough management. Annual follow up of respondents, the facility to evaluate any reason, medical or social, for leaving the sport and the ability to gather data from the growing number of divers with diabetes who are not part of the "club" system, are all factors to take into account and that if not addressed could skew future results.

From

The Hyperbaric Medical Centre, (DDRC-Plymouth), Plymouth, Devon, PL6 8BQ, UK.

Key Words

Diabetes, recreational diving.

DIVING ACCIDENT DATA

INM/BHA diving accident database: analysis of cases 1991 to 30 Sept 1997.

Benton PJ and Glover MA. *Undersea Hyperbaric Med* 1998; 25 (Suppl): 440-41

Abstract

Background

Since 1991 all members of the British Hyperbaric Association (BHA) have forwarded, using standardised reporting forms based upon the descriptive terminology, details of all diving incidents they have treated to the INM for inclusion on a computer

To date the database contains details of 1,422 diving related incidents including 923 cases of decompression illness (DCI). All reports are audited by a diving physician before entry into the database.

The majority of divers were male (84.3%), mean age of male divers 33.8, range 13-71, mean age of female divers 30.4, range 15-50. 1,110 (78%) were amateur divers, 250 (17.6%) civilian professional divers and 62(4.4%) military. Neurological manifestations were present in 721 (78%) cases of DCI, with sensory abnormalities in 545 (59%) and motor deficit in 266 (28.8%) cases. In 139 (15%) cases impairment of higher mental function was reported. Limb pain was present in 454 (49%) cases of DCI, with girdle/back pain in 23 (2.5%). In 140 (15.2%) cases limb pain was the only manifestation of DCI. Constitutional manifestations (fatigue, malaise, headache, vomiting) were reported in 248 (26.8%) cases. Less common

manifestations such as skin 86 (9.3%), pulmonary 36 (3.9%) and lymphatic 8 (0.9%) were also reported. In 471 (51%) cases of decompression illness more than one manifestation was reported. The mean depth of dive prior to DCI was 33 msw with 97 (10.5%) cases of DCI occurring following dives to 50 msw or deeper, 95 msw being the deepest pre-incident dive by an amateur diver. Data for 1995-30 Sep 1997 (n=409) reveals that following initial recompression therapy 216 (52.8%) cases reported complete resolution of symptoms whilst on completion of hyperbaric oxygen therapy (HBOT) 303 (74%) cases reported complete recovery. Residual manifestation were predominantly minor sensory disturbances although 10 (2.4%) cases reported persistent impairment of gait and/or motor disturbance despite aggressive HBOT.

The authors are indebted to the members of the BHA for their continuing support of this study.

From

Institute of Naval Medicine, Alverstoke, Gosport, Hampshire PO12 2DL, UK.

Key Words

Accidents, data, decompression illness.

FLYING AFTER DIVING

Commercial airflight after recompression therapy for decompression illness.

Uguccioni DM, Dovenbarger JA, Hobgood JA and Moon RE. *Undersea Hyperbaric Med* 1998; 25 (Suppl): 36

Abstract

Background

While there is no universal agreement on the appropriate interval before flying after recompression therapy for DCI, a common recommendation is 72 hours. We present a retrospective study of treated DCI to determine symptom re-occurrence during flight.

Methods

All cases in the Divers Alert Network (DAN) database for which treatment was administered from 1993-1995 in either Grand Cayman or Cozumel and was followed by a flight to the US were reviewed. Follow-up was attempted by telephone.

Results

Of 151 cases eligible for the study, follow-up was available on 126. The median number of initial treatments

TABLE 1

Relief After Original Treatment	Yes (N=95)	No (N=31)
Flight < 72 hrs	54 (73%)	20 (27%)
Return/worsening during flight	3	17
Subsequent recompression	2	8
Resolution after 2 nd treatment	1	3
Flight >: 72 hrs	41 (79%)	11 (21%)
Return/worsening during flight	6	5
Subsequent recompression	5	1
Resolution after 2 nd treatment	3	2

was two (range 1-22). Seventy-four cases (59%) waited less than 72 hours before flight; most of these waited 48 hours (52 cases [41%]); Four individuals (3 %) flew within 12 hours of treatment. Fifty-two individuals (41%) waited 72 hours or more before flying; 17 (%) of these who waited greater than 4 days to travel; one individual waited 14 days before flight. Data are summarised in Table 1.

Of the symptoms, which recurred or were exacerbated by flight, nine were severe neurological symptoms, 17 were mild neurological symptom and five were pain only symptoms (*DAN Annual Report on Decompression Illness and Diving Fatalities. 1997*)

Conclusions

This retrospective review shows that there was a subset of divers in both groups who experienced a return or worsening of symptoms with commercial flights after treatment. The return was more likely in those divers who did not have completely resolved symptoms prior to flight and symptom lasted longer in those who flew in less than 72 hours after initial treatment.

From

Divers Alert Network and Duke University Medical Center, Durham, North Carolina 27707, USA.

Key Words

Decompression illness, flying



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THE SEA PEOPLE'S GUIDE TO DIVERS PART TWO

By Rico

Humans say that to see themselves as others see them is a great blessing. Imagine then what a blessing it would be to see themselves as other species see them. If only we could find a way of giving them a Sea People's view of themselves. Well, actually, we can...

Thanks to the kindness of Rico, the cartoonist, and of Bernard Eaton, the Editor of DIVER, who have agreed to allow this series of typical divers to be reproduced in the SPUMS Journal. Although the featured diver types originated in the UK, we believe that most of them, at one time or another, have attended a SPUMS Annual Scientific Conference.



Demolition Crab

The Demolition Crab is the victim of an unhappy childhood. His parents were spartan in their choice of toys, and "educational value" was to rob him of the fun and novelty every child craves in his playthings. So, like the decorator crab, he embellishes his torso with ornamental baubles in an absurd compensation for his early emotional hardships. The Demolition Crab sports more fins and wings than a '59 Cadillac, and enough chrome barracuda lures for his own private feeding frenzy. His gadgets, straps and trailing consoles help bring back the wide-open spaces to coral reefs everywhere. He rarely loses his buddies, so easy is he to follow down his own cloudy trails of destruction.

Bulldozer-Turtle

The Bulldozer-Turtle is the friendly giant of the diver's world. He is not so much a Popeye: more a benign Bluto. To his buddies he is usually just Big Dave. There is a Big Dave in every dive club. Without him a fleet of heavy plant machinery would have to accompany every club convoy. He can lift a 50-horse Merc into a Land Rover with one hand. He can lift the RIB and trailer while Little Jock changes the wheel, with the crew still aboard. When a diver spots a nice little porthole jammed under a 2-tonne boulder, who else is going to readjust the landscape for him but Big Dave?

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