Although vomiting and ataxia are dramatic, they indicate only the acuteness and severity of the vertigo, not necessarily its origin.

Initially the tendency was to treat all cases with surgery, but it soon became evident that conservative treatment was often very effective. This included bed rest with head elevated, avoidance of all intracranial pressure increases (Valsalva manoeuvres, sneezing, nose blowing, straining at defaecation, lifting and other exertion). Repeated PTA is used to monitor progress.

Massive hearing loss or deteriorating hearing despite conservative treatment, are indications for middle ear exploration with plugging of labyrinthine windows even if the fistula cannot be visualised. Successful surgery often has immediate value in relieving symptoms. The 1970s contributed nine (18%) of the surgical cases, with the 1990s producing four (8%). Although verifying the observed trend, this is not statistically significant.

Our experience confirms that permanent inner ear damage predisposes to further damage if the provoking activity (diving) were to continue. The high incidence of both MEBt and IEBt in the past medical history supports this belief. We thus advise IEBt patients with evidence of inner ear damage that not only should they discontinue scuba diving, but they should also avoid any hyperbaric exposure, such as with free diving. They are also advised regarding ideal ME= with aviation exposure.

Conclusions

1. IEBt may be predicted to some degree by a previous history of MEBt or previous IEBt, and is more likely in divers with ENT pathology and who use inappropriate ME= diving techniques.

2. The history of ME= needs to be carefully assessed, to be compared with the dive profile, and the absence of tympanic membrane hemorrhaging does not exclude the diagnosis.

3. The development of symptoms during the dive may be indicative of IEBt diagnosis, but a delay between the dive and the appearance of symptoms does not exclude this diagnosis.

4. The cause of the pathology (IEBt, IEDCS, neurological DCS) can be indicated by the dive profile and the presence of other symptoms of MEBt, IEBt or DCS. PTA and ENG are sometimes necessary to complement the clinical findings and verify the site and extent of the lesion.

References


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Australian standards committees

Dr David Smart was the successful applicant to replace Dr John Knight as the SPUMS representative on the Standards Australia SF-017 Occupational Diving Committee.

Dr Cathy Meehan is the current SPUMS representative on the Standards Australia CS-83 Recreational Underwater Diving Committee.