

DECOMPRESSION SICKNESS: IS IT REALLY DECOMPRESSION SICKNESS OR JUST A HEARING LOSS?

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Introduction

Decompression sickness (DCS) is a potentially life-threatening condition that occurs when dissolved gases (commonly nitrogen) form bubbles in the bloodstream and tissues. This condition affects individuals who experience rapid ambient pressure changes. Here, we present an uncommon presentation of Type II DCS.

Case description

56 years old male, non-smoker with no known medical illness presented to Emergency Department with sudden onset of bilateral hearing loss associated with vertigo and tinnitus for the past 2 days. He had history of scuba diving prior to symptoms. He is a regular diver and went for his first dive of the day with a maximum depth of 14.9metres for 53 minutes and performed safety stop prior to resurfacing. Patient came after 3 days as symptoms did not improve with medications prescribed by previous hospital visits. On examination, vital signs were normal with no skin lesions seen, no joint pain, saturating well under room air. Physical examination was unremarkable, central nervous system examination and otoscope examination were normal. There were no cerebellar signs and Romberg test was negative. He was diagnosed with Type II DCS and referred to Hospital Angkatan Tentera Wilayah Kota Kinabalu for hyperbaric oxygen therapy (HBOT). He underwent HBOT 3 times prior to discharge.

Discussion

DCS Type I commonly presents with skin, musculoskeletal or lymphatic involvement whereas Type II symptoms are mainly neurological. Type II DCS can be challenging to diagnose as it may present with inner ear barotrauma. Patient came with otologic presentation causing misdiagnosis during the first few healthcare visits, hence treatment was delayed. After receiving treatment Table 6 of HBOT, vertigo and tinnitus symptoms resolved. Unfortunately, there were residual of hearing loss. Audiometry test showed significant hearing loss at 2000hz.

Conclusion

Hearing loss as a solitary manifestation of Type II DCS may be difficult to distinguish from middle ear and inner ear barotrauma. Therefore, DCS is a clinical diagnosis and requires a high index of suspicion by clinicians so that prognosis can be greatly improved with early diagnosis and HBOT in these patients.

Keywords

Type II Decompression sickness, inner ear barotrauma, hyperbaric oxygen therapy

