

A CASE REPORT OF DECOMPRESSION SICKNESS: A CHALLENGE IN DIAGNOSIS

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INTRODUCTION Decompression illness results from the formation of gas bubbles within blood vessels or tissues during or following a reduction in environmental pressure. Decompression sickness (DCS) occurs when the combined tensions of dissolved gases (oxygen, carbon dioxide, nitrogen, helium) and water vapour exceed the local ambient pressure, leading to tissue supersaturation and bubble formation. While small venous gas emboli are common and usually asymptomatic due to filtration by the pulmonary circulation, a large burden can cause significant symptoms including dyspnoea, cough, and pulmonary oedema—referred to as cardiorespiratory DCS or “chokes.” Infiltration of nitrogen bubbles to the spinal cord leads to muscular pain, weakness or neurological deficit.

CASE DESCRIPTION We present a middle age man, recreational diver from Terengganu, with myalgia and back pain post diving and few episodes of haemoptysis prior to admission. The patient with experienced proper training reported adherence to recommended decompression protocols following his recent 34 meter dive in Pulau Kapas. The patient’s presenting complaints, in conjunction with the diving history, ensue a working diagnosis of Type II Decompression Sickness (DCS) thus he was referred to hyperbaric center.



Figure 1: Patient’s chest x-ray during presentation.

DISCUSSION This case highlights the diagnostic challenge in recognizing DCS, especially when patients present with atypical symptoms. The presence of myalgia and back pain in a post-dive context raises suspicion for spinal cord involvement, a hallmark of Type II DCS. However, hemoptysis and pleuritic chest pain are rare initial manifestations and may lead to misdiagnosis of more common pulmonary conditions such as pneumonia or pulmonary embolism. These atypical respiratory symptoms can divert clinical attention away from a diving-related etiology, especially in emergency settings. Early consideration of DCS in divers with unusual respiratory symptoms and spinal cord involvement is crucial, particularly when a recent dive history is evident.

CONCLUSION A high index of suspicion is essential for diagnosing decompression sickness, especially in cases with atypical presentations like hemoptysis and pleuritic chest pain. Early referral for hyperbaric oxygen therapy can significantly improve outcomes and reduce the risk of long-term complications.

KEYWORDS decompression sickness, hemoptysis, hyperbaric oxygen therapy

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