

## Recompression of a diver with decompression illness found to be COVID-19 positive

As the grip of the COVID-19 pandemic starts to ease and more divers return to the water, it is inevitable that hyperbaric centres will encounter divers with decompression illness (DCI) who also are found to be positive for COVID-19.

At DDRC Healthcare we have recently treated a diver with joint pain and neurological DCI symptoms of paraesthesia and mild weakness on dorsiflexion that was causing no functional deficit. On arrival at our centre, although asymptomatic, she was found to be positive for COVID-19 on a lateral flow test.

Prior to this, our practice had been guided by the European Underwater and Baromedical Society and European Committee for Hyperbaric Medicine position statement from March 2020, namely avoiding or postponing hyperbaric oxygen therapy (HBOT) in COVID-19 positive patients unless 'considered absolutely necessary to mitigate life-limb threatening or severe functional incapacity'.<sup>1</sup>

However, as the trajectory of COVID-19 has changed and more people are having asymptomatic or mild disease than before, treatment of those with less severe DCI found to be positive for COVID-19 should now be considered.

Our decision to treat this patient factored in two key considerations; the risk to the patient of treating versus not treating, and the risk to others in the centre, particularly the duty chamber attendant. The patient was asymptomatic for COVID-19, and had a normal respiratory examination and resting oxygen saturations. Conversely, her DCI symptoms were causing significant distress and anxiety. Whilst some studies have shown that computerised tomography lung changes are found even in asymptomatic patients<sup>2</sup> a recent literature review undertaken by ourselves and presented at the UK Diving Medical Committee and British Hyperbaric Association Conference (Oban, November 2021) found no case reports of COVID-19 related barotrauma or oxygen toxicity in divers or hyperbaric chambers. A recent meta-analysis reported purposive use of HBOT in treatment of pulmonary manifestations of COVID-19 in 224 patients with no reported adverse effects.<sup>3</sup> For this patient, it was felt the established potential benefits of recompression treatment outweighed a theoretical risk of harm.

The risk of infection to others was also carefully considered. Having spent the previous two years fastidiously ensuring that COVID-19 was kept out of our facility, understandably the idea of treating a patient who was known to be positive

