

Aspirin in the treatment of decompression sickness: what can we learn from French experience?

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With great interest, we read the recent article by Bessereau et al. [1] in "international Maritime Health" describing patient characteristics and clinical outcomes of French divers treated for decompression sickness (DCS). Interestingly, a significant proportion of reported diving accident victims (38% of $n = 49$) received aspirin during the initial first aid treatment. The administration of aspirin in suspected DCS is in accordance with the directives of the French national diving federation (FFESSM, Fédération française d'études et de sports sous-marins) and French practice in DCS treatment in hyperbaric facilities [2]. However, the use of aspirin is not included in international consensus statements on adjunctive interventions to recompression treatment [3].

There is a clear theoretical rationale for the use of aspirin, as it has been shown that nitrogen bubbles interact with thrombocytes leading to thrombocyte adhesion and activation, which is thought to contribute to microvessel obstruction in DCS [4]. In preclinical models, inhibition of thrombocyte aggregation using aspirin or clopidogrel attenuates the clinical course of DCS [5]. However, proper clinical trials investigating the use thrombocyte inhibitors have not been performed so far.


Importantly, administration of aspirin could theoretically also complicate DCS due to the increased bleeding propensity. Besides possible bleeding complications associated with barotrauma during recompression, particular concern

arises from historical observations of central nervous system bleedings in severe DCS [6].

We would greatly appreciate it if Bessereau et al. [1] provided further details on the use of aspirin in their cohort. It is unclear which proportion of divers was treated with aspirin during DCS treatment once admitted to the hyperbaric facility. Particularly, an additional analysis of their data comparing divers (initially) treated with aspirin vs. those who were not treated with aspirin would be valuable. Also, it is important to report on any bleeding complications, or absence thereof, observed during DCS or recompression treatment in divers using aspirin, for future reference. Such retrospective analysis of French experience with aspirin in DCS victims could pave the way for a randomized trial investigating the use of antiplatelet drugs in DCS treatment.

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