Category: 7. Other Muscle Disease

Dantrolene as a possible prophylactic treatment for *RYR1*-related rhabdomyolysis

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Background and aims: Mutations in *RYR1* lead to various neuromuscular phenotypes including malignant hyperthermia susceptibility and Rhabdomyolysis (RM). We report the use of oral dantrolene as a prophylactic treatment for *RYR1*-related RM.

Methods: Case report.

Results: Three patients were prescribed 25mg of dantrolene to take orally up to a maximum of four times a day at the onset of symptoms in an attempt to stop progression of the RM episodes. All patients reported benefits with no drug-related side effect.

Conclusion: In the short term use of low dose dantrolene-associated benefits appear to outweigh risks in the management of patients with recurrent rhabdomyolysis due to mutations in *RYR1*, in particular ad hoc use during symptoms might possibly prevent or abort an attack of RM. Undertaking a randomised, double-blinded, placebo controlled clinical trial to assess risks and benefits of dantrolene in this group of patients could help to evaluate the role this drug in preventing RM due to *RYR1* mutations in the future.