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Titel des Beitrags: A period of immobility after remifentanil administration protects from nausea: an experimental randomized cross-over study.

Abstract: The opioid remifentanil induces a decrease of vestibulo-ocular reflex function, which has been associated with nausea and vomiting when the subjects are moved. The study investigates in healthy female volunteers if immobility after remifentanil administration protects from nausea and vomiting. In volunteers, a standardized movement intervention (a manually applied head-trunk movement forward, backward and sideward) was started 5 min (session A), 35 min (session B) or 60 min (session C) after cessation of a remifentanil infusion (0.15 \( \mu \)g · kg\(^{-1} \) · min\(^{-1} \)). In a cross-over design, 16 participants were randomized to the early (sessions A and B) or the late intervention group (sessions A and C). Nausea was assessed using a 11-point numerical rating scale before and after each movement intervention. Differences within and between groups were assessed with non-parametric tests for paired and unpaired data. Comparing sessions A, B and C, intensity of nausea was time-dependent after cessation of remifentanil administration (\( p = 0.015 \)). In the early intervention group, nausea decreased from median 5.0 [IQR 1.5; 6.0] in session A to 2.0 [1.0; 3.0] in session B (\( p = 0.094 \)); in the late intervention group nausea decreased from 3.5 [2.0; 5.0] in session A to 0.5 [0.0; 2.0] in session C (\( p = 0.031 \)). In summary,
in young healthy women, immobility after remifentanil administration protects from nausea and vomiting in a time-dependent manner. In analogy to motion sickness, opioid-induced nausea and vomiting in female volunteers can be triggered by movement. German Clinical Trials Register DRKS00010667. The trial was registered retrospectively on June, 20th 2016.