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**SEDATION WITH MIDAZOLAM AND KETAMINE FOR INVASIVE PROCEDURES IN CHILDREN WITH MALIGNANCIES AND HEMATOLOGICAL DISORDERS: A PROSPECTIVE STUDY WITH REFERENCE TO THE SYMPATHOMIMETIC PROPERTIES OF KETAMINE**

S. Meyer, S. Aliani, N. Graf, H. Reinhard, S. Gottschling

*Department of Pediatric Oncology, University Of Saarland, Germany*

ackground and study purpose: Different pharmacological agents have been used for sedation in children undergoing invasive procedures. We prospectively evaluated the efficacy, the occurrence of adverse side effects, and cardiovascular parameters in midazolam and ketamine sedation for invasive procedures in children with malignancies and hematological disorders. Patients and methods: A total of 183 invasive procedures were performed on 63 children (mean age 9.2±5.2 years). Intravenous sedation consisted of 0.1 mg midazolam/kg and 1.0 mg ketamine/kg. Incremental dosages of ketamine (0.33 mg/kg) were given if necessary to maintain deep sedation. Systolic and diastolic blood pressure, heart rate, and oxygen saturation invasive procedures were successfully completed were recorded. Results: All 183 with satisfactory sedation levels in 170 procedures (92.9%; 95% CI: 88.2-96.2%). In 33 procedures (18%; 95% CI: 12.8-24.4%) sedation was associated with side effects, One patient experienced a transient .the most common being oxygen desaturation episode of laryngospasm. There was a significant increase in both systolic and diastolic blood pressure, and heart rate after ketamine medication ( $p^{**}<0.01$ ). Procedure and recovery time were correlated to ketamine dosage ( $p^{**}<0.01$ ). Conclusions: The combination of midazolam and ketamine is efficacious in achieving deep sedation for painful invasive procedures. Considering the possibility of potentially serious respiratory complications it should be performed only by physicians who are trained in advanced airway management and life support. As opposed to many other sedative drugs with cardio-depressant properties, ketamine causes a rise in both systolic and diastolic blood pressure, and heart rate.