

Study reveals superior sedation method for children

October 19 2010

Procedural sedation and analgesia is an essential element of care for children requiring painful procedures in the emergency department. The practice of combining ketamine and propofol, two common medications used in emergency departments, has become more popular. However, until recently, it was unclear whether this practice was superior to the use of either agent alone, especially in children.

Research led by Drs. Amit Shah, Gregory Mosdossy and Michael Rieder of the Schulich School of Medicine & Dentistry at The University of Western Ontario and Lawson Health Research Institute provides evidence that when compared to ketamine alone, patients who receive a combination of ketamine and propofol have a slightly faster recovery time and suffer from less severe side effects.

The study, published online in the *Annals of Emergency Medicine*, included 136 [children](#) treated at London Health Sciences Centre's Children's Hospital.

Ketamine is well established as a safe and effective solitary agent for procedural [sedation](#) and [analgesia](#). However, it is known to cause adverse side effects, such as vomiting. Propofol is associated with a dose-dependent risk of respiratory depression, but has less severe side effects.

It has been theorized that by combining the two agents, you can decrease the dose requirement of both agents thereby reducing the negative side-effects, but still have a safe and effective analgesia.

This is the first large well-conducted study exploring the use of ketamine-propofol for children in the Paediatric [Emergency Department](#). Previous studies had hinted at its advantage but up until now results were not conclusive.

"Our study found that ketamine-propofol is an effective combination for pediatric procedural sedation, providing a slightly shorter total sedation time than ketamine alone, with less adverse events and higher satisfaction scores," says Dr. Shah. "We believe this study provides evidence for a safe and effective alternative sedation regimen for children in the Emergency Department and may lead to a change in sedation practices in other hospitals."

Provided by University of Western Ontario

Citation: Study reveals superior sedation method for children (2010, October 19) retrieved 5 May 2024 from <https://medicalxpress.com/news/2010-10-reveals-superior-sedation-method-children.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--