

Researchers identify technique to reduce childrens' post-op pain after high-risk surgery

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Researchers at Children's Hospital of Orange County (CHOC Children's), one of the nation's 50 best children's hospitals, have identified a new technique that will significantly decrease pain for children following high-risk urology surgeries. Findings of the pain management technique were published in the December 2013 online issue of the *Journal of Pediatric Urology*.

"While [pain management](#) is a fundamental part of pediatric surgical recovery and care for pediatric patients, current options involve strong prescription painkillers that can put patients at risk for adverse side effects and possible complications," said study investigator Antoine "Tony" E. Khoury, M.D., chief of pediatric urology at CHOC Children's. "This study demonstrates a major advancement in [pain management](#) for [pediatric urology](#) patients, significantly reducing postoperative pain and the need for [pain medicine](#)."

The research team evaluated continuous infusion of local anesthesia using the ON-Q pain relief system to improve pain control in children undergoing urological procedures. While the ON-Q system is well-established as an effective pain management technique for adults, this is the first study that evaluates its pain management effectiveness in children.

Study results found that the ON-Q pump system decreased the amount of pain experienced by children on the first and second postoperative days, and that it significantly reduced the need for narcotics. During the study, nurses assessed patients' pain using the Visual Analog Scale (VAS) and the Face, Legs, Activity, Cry, Consolability Scale (FLACC), depending on the child's age, for both the test group and a control group, which received standard-of-care pain management.

The pump delivers the anesthetic in an automatic continuous drip, so patients and their caregivers don't have to worry about adjusting the dosage. It is also contained in a pouch, so kids are able to move freely as they recover. Researchers recommend conducting additional clinical studies to further validate this technique as a superior option for postoperative pain management in children undergoing surgery.

In addition to Dr. Khoury, authors for the research study, "Application of continuous incisional infusion of local anesthetic after major pediatric urological surgery," include Guy Hidas, Hak J. Lee, Blake Watts, Maryellen Pribish, Edwin T. Tan, and Zeev N. Kain—all are affiliated with the departments of urology at both CHOC Children's and the University of California, Irvine.

More information: Hidas G., et al., Application of continuous incisional infusion of local anesthetic after major pediatric urological surgery, *Journal of Pediatric Urology* (2013), www.jpurol.com/article/PIIS147...bstract#.Uqd1LcyBAWI

Provided by Children's Hospital of Orange County

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