

## **Assessment of Pulse Oximeter Perfusion Index in Pediatric Caudal Block under Basal Ketamine Anesthesia.**

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Whether pulse oximeter perfusion index (PI) may be applied to detect the onset of caudal block in pediatric patients under ketamine intravenous basal anesthesia is investigated.

40 ASA I, 2-8-year-old boys scheduled for elective circumcision surgery were randomized into two groups. Group I: 20 patients were anesthetized by 2 mg·kg<sup>-1</sup> ketamine intravenous injection (IV) followed by caudal block using 1 mL·kg<sup>-1</sup> lidocaine (1%); Group II: 20 patients were anesthetized by 2 mg·kg<sup>-1</sup> ketamine IV only.

PI on the toe in Group II decreased by 33 ± 12%, 71 ± 9% and 65 ± 8% at 1 min, 15 min, and 30 min after ketamine injection. The maximum increase in MAP and HR after ketamine IV was 11 ± 6% at 3 min and 10 ± 6% at 2 min. Compared to the PI value before caudal injection of lidocaine, PI in Group I increased by 363 ± 318% and 778 ± 578% at 5 min and 20 min after caudal block, while no significant changes in MAP and HR were found compared to the baseline before caudal block.

Thus, PI provides an earlier, more objective, and more sensitive indicator to assess the early onset of caudal block under basal ketamine anesthesia.