

Evaluation of Effectiveness of Transversus Abdominis Plane (TAP) Block with Bupivacaine for Pain Control after Appendectomy in Children

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Background:

Appendectomy is one of the most common surgeries among adults and children. Pain management in children is very important, but the use of opioid analgesics, despite of good performance, due to their side effects are limited. The aim of this study was to evaluate the effect of TAP Block in children appendectomy on the intensity and frequency of pain.

Methods & Materials:

In a single-blinded clinical trial, 40 children aged 4 to 16, candidate for appendectomy in Children Hospital of Tabriz University of Medical Sciences, were randomly divided to intervention and control groups. After general anesthesia, patients in the intervention group, had TAP Block with guidance of ultrasonography with bupivacaine 0.25%, 0.25 ml/kg and 1/200000 adrenaline, in the Petit Triangle (Max dose of 20 ml). Pain was recorded in both groups within 24 hours after surgery based on the visual analog scale (VAS score). The SPSS version 16 was used for statistical analysis.

Results:

The mean ages of patients in the intervention and control groups were 9.90 ± 2.42 and 10.10 ± 2.31 respectively. In both groups, 7 patients (35%) were male and 13 patients (65%) were female. The severity of pain according to VAS score, 2 hours after surgery in the intervention group was 5.05 ± 2.83 , and in control group was 6.30 ± 2.20 . Also the pain intensity, 24 hours after surgery in the intervention group was 3.10 ± 1.33 , and in control group was 3.60 ± 1.63 . There was no significant difference between intervention and control groups ($p > 0.05$).

Conclusion:

In this study, the TAP block was effective to reduce pain after appendectomy in children, but there was no significant difference between intervention and control groups. Studies with larger sample sizes are necessary to be done in this area.

Keywords: Appendectomy, children, TAP Block, Visual Analog Scale.