

The effect of depth of anesthesia monitoring using bispectral index on the incidence and severity of nausea and vomiting after urologic surgery

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ABSTRACT:

Introduction: The bispectral index parameter is used to guide the titration of general anesthesia. This monitoring improves recovery times and hospital discharges, as well as minimizes adverse events.

Objective: The objective of this study is comparison of anesthesia depth monitoring by conventional and bispectral index on nausea and vomiting after urologic surgery.

Methods and materials: 180 participants who were candidate for abdominal urological surgery at the single center with age range 20 to 60 years and The American Society of Anesthesiologists Physical Status classification I-II enrolled in this clinical trial. Patients before induction of anesthesia randomize to two groups with and without bispectral index monitoring. Drugs infusion was set for bispectral index 40 -60 in the interventional group and in the control group, drugs infusion was set to maintain heart rate and blood pressure in the range $\pm 20\%$ of baseline. Incidence and severity of nausea and vomiting record every 30 minutes for 2 hours and every 6 hours to 24 hours after surgery.

Results: The incidence of postoperative nausea and vomiting in Bispectral index group is 14.4% and 8.9% and in control group 28.9% and 23.3%, respectively. The risk of nausea and vomiting after surgery was reduced by 14.5% and 14.4% respectively in patients monitored with bispectral index.

Conclusion: The incidence and severity of nausea and vomiting after surgery will be a significant reduction if Bispectral index monitoring is used during surgery.

Key word: Bispectral Index Monitor, Nausea, Vomiting.