

COMPARISON OF COMPLICATIONS OF SPINAL AND GENERAL ANESTHESIA IN PERCUTANEOUS KIDNEY STONE REMOVAL

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Abstract

While the complications of spinal anesthesia are much less than general anesthesia, percutaneous nephrolithotomy (PCNL) is still performed under general anesthesia in most centers. Therefore, in this study spinal anesthesia is compared with general anesthesia in patients undergoing PCNL. This research was a double-blind clinical trial study which was conducted on 130 patients with inclusion criteria. Patients were nonrandomly assigned into two general anesthesia (n=65) and spinal anesthesia (n=65) groups and underwent PCNL surgery.

In group A, patients were given intravenously midazolam (2 mg), fentanyl (100 µg), atracurium (0.5 mg/kg), propofol (2 mg/kg) and morphine (10 mg) and then were incubated. In group B, Marcaine 0.5% (15 mg) was injected into the L3-L4 or L4-L5 lumbar spinal space in a sitting position. Patient's blood pressure was measured and recorded at various times and in recovery as well as in the surgery room. Intra-operative bleeding, pain in the surgery area, nausea and vomiting, shortness of breath and sore throat were recorded for the two groups in the ward and during hospitalization.

Changes of blood pressure were the same in both groups. In the general anesthesia group, intra-operative bleeding, pain at the site of the surgery, nausea and vomiting, shortness of breath and sore throat and duration of hospitalization were significantly higher. Changes in other tests were equal in both groups. Spinal anesthesia might be a safer method than general anesthesia for PCNL surgery.

Keywords

Complication, Spinal Anesthesia, General Anesthesia, Kidney Stone Removal, Percutaneous