Combined spinal-epidural anesthesia for laparoscopic nephrectomy in obese patient with renal myelolipoma: a case report

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Background and Aims:

We aim to describe the anesthetic management of a patient with severe obesity and chronic obstructive pulmonary disease scheduled for laparoscopic radical nephrectomy due to renal mass.

Methods:

A 62-year-old man with severe obesity (BMI 52,4 Kg/m²) and obstructive pulmonary disease was scheduled for a laparoscopic nephrectomy. Because his pulmonary function was impaired, combined spinal-epidural anesthesia was selected. Epidural catheter was inserted at T6-T7 intervertebral space and spinal anesthesia was performed at T9-T10 intervertebral space with 3 ml of 0.5% levobupivacaine (15 mg) plus 1 mg of midazolam. The patient received one bolus of 3 mL 0.5% levobupivacaine (15 mg) plus 25 mcg of fentanyl via the epidural catheter at 1 hour after entering the operating room, followed by a continuous epidural infusion of 0,5% levobupivacaine at 5 mL/hr. Propofol and Remifentanyl were administered intravenously to achieve the desired level of sedation.

Results:

A transperitoneal laparoscopic left kidney nephrectomy was performed without complications and the patient was transferred in an alert and comfortable condition to the ICU for close monitoring.

Conclusions:

Although laparoscopic nephrectomy is usually performed under general anesthesia, in a complex patient with severe obesity and chronic obstructive pulmonary disease, we conclude that combined spinal-epidural anesthesia can be considered a safe and effective approach.

	SBD/DBP (mmHg)	HR (beats/min)	SpO ₂ (%)	BIS
Pre-op	156/73	72	93	93
5 min after spinal block	97/42	75	91	83
30 min after spinal block	115/69	58	92	77
60 min after spinal block	121/67	57	92	75
90 min after spinal block	135/83	70	94	85
120 min after spinal block	110/62	68	90	70
150 min after spinal block	112/64	70	92	77
180 min after spinal block	133/67	74	94	84
At ICU	146/71	89	94	98

Table 1. Changes in systolic blood pressure (SBP), diastolic blood pressure (DBP), HR, SpO₂, and BIS during perioperative period