

MEETING ABSTRACT

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# Laparoscopic colecistectomy: anesthetic implications in the elderly patient

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## Background

The gallbladder stone is 20-40% of geriatric diseases. In elderly patients with limited cardiac reserve the pneumoperitoneum determines dangerous alterations of the cardiac output and other hemodynamic variables. The frequent co-morbidity in elderly people leads to a severe prognosis in these patients with surgical high mortality and morbidity rates in open surgery (1) otherwise the laparoscopic procedure is followed by lower mortality and morbidity rates (0-0.6% vs 1.4%). (2,3,4). The gradual abdominal insufflation to 12 mmHg followed by a limited 10 degree head-up tilt is associated with cardiovascular stability in elderly ASA III patients (5).

The aim of our study was to analyze hemodynamic modifications during surgical treatment by laparoscopic colecistectomy and the anesthetic implications.

## Materials and methods

121 patients aged over 65 years old were analyzed who underwent laparoscopic cholecistectomy. The operation was conducted with a low pressure of CO<sub>2</sub> (8-10 mmHg). We observed the hemodynamic trend during the anesthesia: blood pressure, heart rate, respiratory rate, Tidal Volume and end Tidal CO<sub>2</sub>. Blood gas exchanges were analyzed.

## Results

After 15 minutes of pneumoperitoneum the blood pressure was higher (123 ± 18 mmHg) whereas the heart rate was the same.

PcO<sub>2</sub> and end Tidal CO<sub>2</sub> was higher respectively 15 and 60 minutes after pneumoperitoneum. The end Tidal CO<sub>2</sub> gap was low (3.5 mmHg) during the surgery. In the postoperative period the blood exchanges showed the

same value as the preoperative period while there was no PAO<sub>2</sub> modification during the procedure.

## Conclusions

Our study showed the safety and the effectiveness of the laparoscopic cholecistectomy in elderly patients. Complications were not observed in the postoperative period.

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