SERUM ARTERIAL LACTATE AND OUTCOME IN HEPATIC RESECTION SURGERY: PROPOFOL Vs SEVOFLURANE

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BACKGROUND AND GOAL OF STUDY

An early raise of lactic acid (LA) after hepatic resection has been associated with hepatic and renal dysfunction and increased mortality. (1,2)

Goal of the study: analyzing the effect of anaesthesia with propofol or sevoflurane in the LA levels and postoperative outcomes after hepatic surgery.

MATERIALS AND METHODS

A prospective observational study.

162 patients underwent open liver resection surgery:

- 132 patients were anesthetized with sevoflurane
- 32 patients were anesthetized with propofol.

Every patient had continuous epidural anesthesia between T7 and T9 levels.

Both groups were homogeneous in demographic characteristics, clinical and biochemical data and extent of the resection.

Fluid replacement was performed with Plasmalyte (lactate free) at a dosage of 2ml/kg/h.

The levels of LA, pH and creatinine were obtained at the end of surgery from an arterial blood sample and afterwards analyzed.

RESULTS

	PROPOFOL	SEVOFLURANE	p
LACTATE END OF SURGERY (mmol/L)	1.92+/-1.78	2.84+/-1.52	0.004
pH	7.37+/-0.62	7.35+/-0.53	0.07
CREATININE(mg/dl)	0.8 +/- 0.2	1.1 +/- 0.3	0.002
DAYS OF HOSPITALIZATION	9.33+/-5.7	15.84+/-15.7	0.039

We did not find any significant differences between the two groups during the Pringle manoeuvre, mean arterial pressure, cardiac output or in the administration of vasoconstrictors.

CONCLUSIONS

The use of **propofol** in open hepatic resection surgery is associated with **lower levels of LA, serum creatinine and less hospital stay days** compared with sevoflurane. These results suggest a protective effect of propofol in the final outcome which needs to be confirmed with a randomized study.

REFERENCES

- 1.Serum arterial lactate concentration predicts mortality and organ dysfunction following liver resection. MG Wiggins et al. Perioperative Medicine 2013.
- 2.Hyperlactemia can predict the prognosis of liver resection. Izuru Watanabe, Shock 2006