

under a comparable deployment of resources (TISS 28 score). Undesirable effects of n3FA on coagulation or bleeding disorders did not occur, in particular after liver surgery. The synthesis capacity for fibrinogen was significantly improved in the MOFA-group ( $p = 0.034$ ). At the same time overwhelming humoral and cellular immune response could be contained by the MOFA approach still preserving the physiological pro-inflammatory reaction. On the third postoperative day levels of TNF $\alpha$  were reduced in the MOFA-group ( $p = 0.03$ ). The leukocyte response was blunted in the MOFA group ( $p = 0.024$ ). Similarly, the more moderate course of the interleukin 6/interleukin 10-ratio after liver surgery demonstrated the avoidance of excessive pro-inflammatory response ( $25 \pm 42$  days ctrl. vs.  $18 \pm 16$  MOFA  $p = 0.028$ ).

**Conclusions:** Due to the dampening of an overwhelming metabolic stress- and inflammation response by the MOFA concept a prompt postoperative decrease in SAPS II values can be shown followed by a more rapid achievement of defined therapeutic goals.

**Acknowledgment:** Die Studie wurde gefördert durch Fresenius-Kabi, Bad Homburg.

## Clinical Sepsis Research: Therapy

### 001

#### Infection 2011

##### Effects of a metabolic optimized fast track concept (MOFA)

Heller AR (1), Denz A (2), Neidel J (1), Konopke R (2), Gottschlich B (1), Seifert S (2), Koch T (1)

(1) *Department of Anesthesiology and Intensive Care Medicine, University Hospital Dresden, Germany*, (2) *Department of Visceral-Thoracic- and Vascular Surgery, University Hospital Dresden, Germany*.

**Introduction:** Fast track concepts using thoracic epidural anesthesia (EDA) and perioperative patient conditioning with omega-3 fatty acids (n3FA), glucose (GC) control and on-demand fluid therapy, respectively, showed beneficial effects.

**Objectives:** The MOFA-study evaluated the effects of combining the mentioned components in patients undergoing colon and liver surgery.

**Methods:** After BfArM and IRB approval 101 patients ( $61 \pm 12$  years;  $173 \pm 8$  cm;  $83 \pm 16$  kg) were enrolled in this prospective RCT. All patients received EDA. In addition, the MOFA group preoperatively received 0.2 g/kg fish oil (Omegaven, Fresenius-Kabi, Bad Homburg, Germany) followed by a 3-day continuous infusion of 0.2 g/kg/day n3FA. Further, intraoperative fluids were restricted to 4 ml/kg/h and GC was kept below 8 mmol/l. Pre- and postoperatively energy drinks (ProvideExtra) were administered.

**Results:** With the MOFA concept an earlier onset of bowel function by 12 h ( $p = 0.018$ ) could be shown. The disease severity (SAPS II score) of patients in the MOFA group recovered faster ( $p = 0.021$ )