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The effect of operative stress in abdominal surgery on the hepatovisceral circulation - preliminary results

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We will present the preliminary result of the ongoing study with the title: “The effect of operative stress in abdominal surgery on the hepatovisceral circulation”

Objective #1: To assess the impact of abdominal surgery on visceral arterial and portal venous flow. Objective #2: To assess how different types of resections influence the postoperative visceral arterial and portal venous flow. Objective #3: To determine the effect of comorbidity on the hepatovisceral circulatory response on surgery.

Expected results: The hepatovisceral blood flow after abdominal resections will probably be increased for the first few days after surgery. The increment will probably be lower in polymorbid patients. The whole body tolerance to volume depletion and falls in systemic pressure will probably be diminished.

What will be measured: The observed parameter is the estimated hepatovisceral BF in the first few (4-7) days after surgery measured with Doppler ultrasound. We will measure BF at the level of the suprarenal aorta (SRA), t. Coeliacus (TC), a. Mesenterica superior (AMS) and Portal vein (PV). In the two separate study groups we will enroll patients scheduled for right hemicolectomy and radical gastrectomy. The control group will be composed of patients with incisional hernias. By comparing this two groups we will be able to eliminate the effect of general anesthesia and laparotomy on the changes in the hepatovisceral BF. Also of interest are the differences in the hepatovisceral BF distribution among polymorbid and otherwise healthy patients.

We will discuss and present the actual preliminary results in regard to the expected results.