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P-159 SAFETY AND TOLERANCE OF A LOW VOLUME, HIGH CONCENTRATED ENTERAL SUPPLEMENT PROVIDED EARLY AFTER MAJOR ABDOMINAL SURGERY

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Rationale: Clinical assessment of safety, tolerance, and uptake of a newly developed enteral supplement designed to maintain gut barrier and function in postoperative conditions.
Method: In a prospective, non-controlled study 20 patients received an enteral supplement within 2h after major abdominal surgery (Intestamin - Fresenius Kabi, 500 ml/d; glutamine 30 g as dipeptides, selenium 300 μg, zinc 20 mg, vitamin C 1.5 g, vitamin E 500 mg, ß-carotene 10 mg, tributyrin 1 g). Supplementation was performed via jejunostomy for 3 postoperative days in addition to parenteral nutrition (maximum 25 kcal/kg/d). On postop day 4, transition to a complete enteral formula (Reconvan) was established. Safety (liver/kidney tests, haematology), tolerance (nausea, vomiting, meteorism, constipation, diarrhoea) and uptake (plasma concentrations) was assessed on postoperative days 1, 3, and 6. Incidence of adverse events were monitored.
Results: From day 1 to 3, mean plasma levels of vitamin E (13.5 vs. 20.8 μmol/L), vitamin C (13.0 vs. 62.8 μmol/L), selenium (35.0 vs. 42.9 μg/L), and zinc (5.6 vs. 8.6 μmol/L) increased significantly. The mean plasma levels of glutamine (429.6 vs. 529.7 μmol/L) and arginine (47.2 vs. 98.2 μmol/L) increased significantly from day 1 to 6. No adverse event related to the supplement was noted. Only one patient revealed nausea and vomiting on day 3 and one patient complained about meteorism on day 2 and constipation on day 3. Laboratory values showed no clinically relevant changes.
Conclusions: The new enteral supplement can be safely used and is well tolerated in patients after surgery. Increase in plasma concentrations of supplement constituents suggest effective uptake..