“We conducted a meta-analysis to evaluate the effects of parenteral immunonutrition on clinical outcomes (infectious complications, length of hospital stay (LOS) and mortality) in patients with acute pancreatitis.” Jafari et al (2014).

Reference:

Parenteral immunonutrition on clinical outcomes in patients with acute pancreatitis
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Abstract:

BACKGROUND & AIMS: Acute pancreatitis is a systemic immunoinflammatory response to auto-digestion of the pancreas and peri-pancreatic organs. Patients with acute pancreatitis can rapidly develop nutritional deficiency; hence nutritional support is important and critical. Sometimes parenteral nutrition (PN) is inevitable in acute pancreatitis. Due to immunosuppressive and inflammatory nature of the disease, it seems that immunonutrients like glutamine and omega-3 fatty acids (ω-3 FAs) added to parenteral formulas may improve the conditions. We conducted a meta-analysis to evaluate the effects of parenteral immunonutrition on clinical outcomes (infectious complications, length of hospital stay (LOS)
and mortality) in patients with acute pancreatitis.

METHODS: A computerized literature search on four databases (PubMed, Cochrane, ISI Web of Science, and Iran Medex) was performed to find all the randomized controlled trials (RCTs) assessed the effects of parenteral immunonutrition in acute pancreatitis. Necessary data were extracted and quality assessment of RCTs was performed with consensus in the study team. Fixed effects model was used to conduct the meta-analysis.

RESULTS: One hundred and ninety four references were found via our search in which 7 articles matched our criteria for enrolling the meta-analysis. Parenteral immunonutrition significantly reduced the risk of infectious complications (RR = 0.59; 95% CI, 0.39-0.88; p ≤ 0.05) and mortality (RR = 0.26; 95% CI, 0.11-0.59; p ≤ 0.001). LOS was also shorter in patients who received immunonutrition (MD = -2.93 days; 95% CI, -4.70 to -1.15; p ≤ 0.001).

CONCLUSION: Immunonutrients like glutamine and ω-3 FAs added to parenteral formulas can improve prognoses in patients with acute pancreatitis.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).