



“The substitution of OOFE with MOFE in patients with moderate hypertriglyceridemia during PN resulted in a reduction in triglyceridemia values of about 70 mg/dL.” Mateu-de Antonio and Florit-Sureda (2014).

Reference:

Mateu-de Antonio, J. and Florit-Sureda, M (2014) New Strategy to Reduce Hypertriglyceridemia During Parenteral Nutrition While Maintaining Energy Intake. Journal of Parenteral and Enteral Nutrition. September 11th. .

New strategy to reduce hypertriglyceridemia during parenteral nutrition [@ivteam #ivteam](http://ctt.ec/I01f1+)

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Abstract:

Background: Hypertriglyceridemia is a frequent metabolic complication associated with fat administration in parenteral nutrition (PN). No clear guidelines have been published on how to proceed once hypertriglyceridemia has been detected. A new strategy could be to substitute the initial fat emulsion with another emulsion with faster clearance. Our objective was to determine the effectiveness in reducing triglyceridemia values, maintaining the caloric intake, and improving nutrition parameters in patients who had moderate hypertriglyceridemia during PN when an olive oil-based fat emulsion (OOFE) was substituted

with a multiple-source oil fat emulsion (MOFE). We also assessed the safety of this substitution in hepatic and glycemic profiles.

**Materials and Methods:** We performed a retrospective, observational study that included 38 adult patients to whom OOFE in PN was substituted with MOFE when moderate hypertriglyceridemia ( $\geq 250$ – $400$  mg/dL) was detected.

**Results:** Triglyceridemia values decreased in 36 (94.7%) patients. The mean reduction was 71 (88–22) mg/dL. Fat load was slightly reduced after substitution ( $-0.14$  [ $-0.23$  to  $0$ ] g/kg/d;  $P < .001$ ), but total caloric intake increased from 22.5 (19.7–25.1) to 23.1 (19.8–26.8) kcal/kg/d ( $P = .053$ ). After substitution, nutrition parameters improved, liver parameters remained unchanged, and insulin requirements increased.

**Conclusion:** The substitution of OOFE with MOFE in patients with moderate hypertriglyceridemia during PN resulted in a reduction in triglyceridemia values of about 70 mg/dL. That allowed maintaining the caloric intake and improved nutrition parameters without affecting the hepatic profile. For some patients, insulin requirements increased moderately.

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