THE MEDIUM/LONG-CHAIN TRIGLYCERIDES EMULSION IS BENEFICIAL FOR STABILIZATION OF METABOLIC ENVIRONMENT OF CHILDREN WITH SERIOUS DISEASES

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[ABSTRACT] Objective: To investigate whether the medium/long-chain triglycerides (MCT/LCT) emulsion will interfere stabilization of metabolic environment of the children with serious diseases. Methods: According to randomized and double-blind parallel controlled principles, 50 cases of the children with serious diseases in need of parental nutrition therapy, were divided into 2 groups: control group (long-chain triglycerides, LCT, n=25) and treatment group (MCT/LCT, n=25). The values of serum triglyceride, free fatty acids, ketone bodies, total bilirubin, free bilirubin etc. and tolerance to emulsion were compared between two groups before and after 2 weeks treatment. The efficacy, the effects of cellular immune and extracellular homeostasis were also compared between 2 groups. Results: The parental nutrition in 2 groups was efficient and safe. But the effect on immune and homeostasis in MCT/LCT was better than that of control (P < 0.05). Conclusions: MCT/LCT for children with serious diseases is more reliable and easy to tolerance. It rarely interferes cellular immune and extracellular homeostasis.

[Key words] Parenteral nutrition; Triglyceride; Fat emulsion, For intravenous injection