

论著

## 免疫增强型肠外营养对门静脉高压症术后营养、免疫和炎症反应的影响

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**摘要** 目的: 观察比较免疫增强型肠外营养疗法与标准营养疗法对肝硬化门静脉高压症手术患者术后营养、免疫状态和急性炎症反应的影响。方法: 选择42例接受门静脉高压症手术的肝硬化患者, 随机分为2组: 标准营养组(TPN, n=20)和免疫增强营养组(TPN加谷氨酰胺和人重组生长激素, n=22), 术后3 d开始进行等氮等热量营养支持, 持续7 d。手术当天(0 d)、3 d和10 d清晨分别抽取静脉血, 检测血清前白蛋白、转铁蛋白、T细胞亚群CD4+、CD8+、CD4+/CD8+、IgG、IgA、IgM、IL-2、TNF- $\alpha$ 和CRP。结果: 免疫增强营养组在术后第10 d血清前白蛋白、转铁蛋白、CD4+、CD4+/CD8+、IgG和 IL-2水平显著高于对照组(P<0.05), TNF- $\alpha$ 和CRP显著低于对照组(P<0.05)。结论: 免疫增强型肠外营养疗法比标准营养疗法更能改善肝硬化门静脉高压症手术患者术后营养状态和免疫功能, 减轻急性炎症反应。

**关键词** [肝硬化](#); [高血压,门静脉](#); [全胃肠外营养](#); [免疫力](#)

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## Effects of immune-enhancing parenteral nutrition on nutritional status, immunity and inflammatory responses in postoperative patients with portal hypertension surgery

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### Abstract

<FONT face=Verdana>AIM: This study was conducted to evaluate the effects of postoperative immune-enhancing parenteral nutrition on the nutritional statue, immune function, and inflammatory responses in patients undergoing portal hypertension surgery. <BR>METHODS: This study was designed as a prospective, randomized and controlled clinical trial. Forty-two patients undergoing portal hypertension surgery were randomly assigned to receive either an immune-enhancing parenteral nutrition (adding glutamine and recombinant human growth hormone, n=22) or an isocaloric and isonitrogenous control standard parenteral nutrition (n=20) for seven days. Parenteral nutrition was initiated 3 days after surgery. Blood samples were obtained on day 0, 3, and 10. Host nutritional statue was evaluated by measuring levels of prealbumin and transferrin, immunity was observed by measuring levels of CD4+ cells, CD8+ cells, CD4+/CD8+, IgG, IgM and IgA, and the inflammatory responses was determined by assessing IL-2, TNF- $\alpha$  and C-reactive protein (CRP) levels. <BR>RESULTS: On postoperative day 10, among patients receiving an immune-enhancing parenteral nutrition, prealbumin, transferrin, CD4+ cells, CD4+/CD8+, IgG and IL-2 levels were significantly higher than those in control group, and TNF- $\alpha$  and CRP concentrations were significantly decreased (P<0.05). <BR>CONCLUSION: Postoperative administration of immune-enhancing parenteral nutrition in patients undergoing portal hypertension surgery can improve postoperative nutritional statue and immune function, and relieve inflammatory response.</FONT>

**Key words** [Liver cirrhosis](#) [Hypertension](#) [portal](#) [Total parenteral nutrition](#) [Immunity](#)

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