Impact of early enteral and parenteral nutrition on prealbumin and high-sensitivity C-reactive protein after gastric surgery

B. Li, H.-Y. Liu, S.-H. Guo, P. Sun, F.-M. Gong and B.-Q. Jia

Department of Surgical Oncology,
General Hospital of the People’s Liberation Army, Fuxing Road, Beijing, China

Corresponding author: B.-Q. Jia
E-mail: jiabaoqing1971@126.com

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ABSTRACT. We investigated the impact of early enteral nutrition (EEN) and parenteral nutrition (PN) on prealbumin (PA) and high-sensitivity C-reactive protein (hs-CRP) in patients after gastric cancer surgery. Sixty-eight selected patients undergoing gastric cancer surgery were randomly divided into the EEN (N = 34) and PN (N = 34) groups. Body weight (BW), serum albumin (ALB), transferrin (TF), PA, hs-CRP, length of hospital stay, cost of postoperative nutritional support, and incidence of complications were compared between groups. On postoperative day 7, the BW, TF, ALB, and PA for both groups were significantly decreased compared with the values obtained on preoperative day 1 (P < 0.01). A significant decrease was observed in TF and PA in the PN group compared with the EEN group (P < 0.01). There was no significant difference in BW and ALB between the two groups (P > 0.05). The hs-CRP level of both groups was significantly higher than on preoperative day 1. There was a significant increase in hs-CRP in the PN group compared with the EEN group (P < 0.01). The anal exhaust time, length of hospital stay, and nutritional support cost were significantly shorter or lower in the EEN group than in the PN group.
group (P < 0.01). There was no significant difference in the incidence of complications between the two groups (P > 0.05). EEN helps regulate the postoperative response of patients after gastric cancer surgery, promotes rehabilitation, and accelerates the recovery of gastrointestinal function. Furthermore, EEN has the advantage of being inexpensive.

**Key words:** Gastric cancer; Enteral nutrition; Parenteral nutrition; Prealbumin; High-sensitivity C-reactive protein