A prospective randomized study was performed to investigate the validity of intravenous carnitine administration during postoperative parenteral nutrition (PN) with lipid emulsion” Koyama et al (2017).

Abstract:

BACKGROUND: A prospective randomized study was performed to investigate the validity of intravenous carnitine administration during postoperative parenteral nutrition (PN) with lipid emulsion.

METHODS: Patients undergoing surgery for gastric or colorectal cancer were enrolled in the study and were randomly divided into two groups (n = 8 in each group): 1) group L, who received a peripheral PN (PPN) solution of 7.5% glucose, 30% amino acid, and 20% lipid emulsion; and 2) group LC, who received the same PPN solution, as well as carnitine intravenously. PPN was performed from postoperative day (POD) 1 to POD4. Clinical and laboratory parameters were compared between the two groups; statistical significance was set at P < 0.05.

RESULTS: Serum carnitine concentrations were significantly higher in group LC on POD3 (P < 0.01) and POD7 (P = 0.01). Postoperative changes in laboratory parameters and morbidity were comparable between the two groups. However, the decrease in C-reactive protein from POD3 to POD7 was significantly greater in group LC than in group L (P = 0.011).

CONCLUSION: The results show that intravenous carnitine administration in addition to PN is safe and may be beneficial for recovery from postoperative inflammatory reactions.

Full Text

Reference:

Koyama, Y., Moro, K., Nakano, M., Miura, K., Nagahashi, M., Kosugi, S.I., Tsuchida, J., Ikarashi, M., Nakajima, M., Ichikawa, H., Hanyu, T., Shimada, Y., Sakata, J., Kameyama, H., Kobayashi,

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