

Clinical and Immunological Impact of Early Postoperative Enteral Immunonutrition After Total Gastrectomy in Gastric Cancer Patients: A Prospective Randomized Study

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Objective

To assess the effect of early postoperative enteral immunonutrition on outcomes in gastric cancer patients undergoing gastrectomy.

Methods

A randomized, controlled trial comparing enteral immunonutrition and standard formula given within 6 hours postoperatively via jejunal tube. Patients having gastrectomy (n=109) received either a formula supplemented with arginine, omega-3 fatty acids and nucleotides (IMPACT[®] Formula) or an isocaloric-isonitrogenous standard formula. The goal of enteral feeding was 35 kcal/kg/day and the duration was 7 days. Clinical variables measured included infectious complications, anastomotic leak rate and length of stay (LOS).

Results

- Baseline nutritional values comparable among the two groups. Good tolerance observed for both diets with no discontinuations; nutritional goal reached for all patients.
- Significantly fewer postoperative infectious complications were found in patients fed IMPACT[®] formula (n=54) compared to patients fed standard formula (n=55) (7.4% vs 20%; $p=0.041$).
- The anastomotic leak rate was also significantly lower in patients fed IMPACT[®] formula vs standard formula (3.7% vs 7.3%; $p=0.045$).
- Mortality rate did not show any significant differences.
- LOS was significantly reduced in the IMPACT[®] vs standard formula group by 3.2 days (12.7 +/- 2.3 days vs. 15.9 +/- 3.4 days, respectively; $p=0.029$).

Conclusion

Authors conclude that early postoperative enteral nutrition with a formula supplemented with arginine, omega-3 fatty acids and nucleotides (IMPACT[®] formula) conferred consistent advantages in overall clinical outcome when compared with standard formula in patients undergoing gastrectomy for gastric cancer.

Summary prepared by Nestlé Healthcare Nutrition. The complete study can be accessed online at: <http://www.ncbi.nlm.nih.gov/pubmed/23838912>