

Reduced Postoperative Infections with an Immune-Enhancing Nutritional Supplement

Snyderman CH, Kachman K, Molseed L, Wagner R, D'Amico F, Bumpous J, Rueger R
The Laryngoscope 1999; 109:915-921

Objective

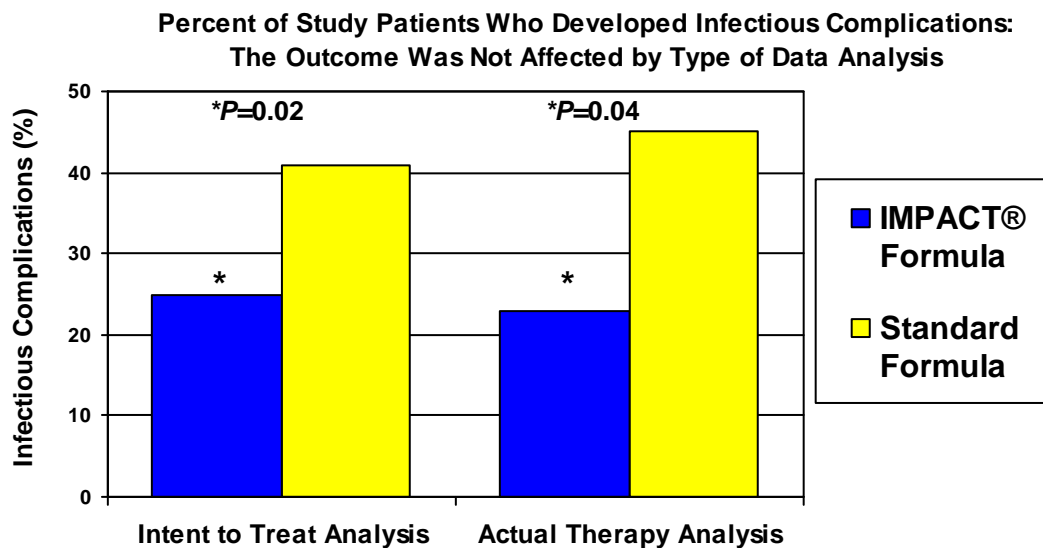
To determine if perioperative nutritional supplementation with an immune-enhancing formula was superior to standard formula in the prevention of postoperative infectious complications in head and neck oncology patients.

Methods

This prospective, randomized, double-blind trial compared perioperative nutritional supplementation with IMPACT[®] Formula and standard formulas. 136 patients undergoing oncologic head and neck surgery were randomly assigned to one of four treatment groups: (I) pre/postoperative IMPACT[®] (II) postoperative IMPACT[®] (III) pre/postoperative standard formula, and (IV) postoperative standard formula. Treatment goals consisted of preoperative oral intake of a minimum of 500 mL per day of the formula for at least 5 days in groups I and III, and postoperative intake via tube feeding of an average of 1000 mL per day for at least 7 days in all groups. Outcome measures included laboratory evaluations of nutritional status, infectious and wound healing complications, and duration of hospitalization. Intent-to-treat and actual therapy analyses were performed.

Results

- Both intent-to-treat ($P=0.02$) and actual therapy ($P=0.04$) analyses revealed a significant decrease in the incidence of postoperative infectious complications in the patients who received IMPACT[®] Formula
 - The incidence of postoperative infectious complications in patients assigned to receive IMPACT[®] Formula (9/40 [23%]) compared significantly with standard therapy (13/31 [45%])
- There was no significant difference in wound healing problems or duration of hospitalization across groups; however, length of hospitalization was significantly prolonged in patients with post-operative infections (median of 20 days vs 12 days, $P<0.0001$)
- Postoperative measures of nutritional status at 1 week demonstrated a significantly higher serum albumin level ($P=0.05$) in the IMPACT[®] Formula groups compared with standard formula groups.
- The authors noted that the observed decrease in infection rate associated with IMPACT[®] Formula use could result in 176 fewer days of hospitalization for every 100 patients treated.



Conclusion

Compared with standard formula, perioperative nutritional supplementation with IMPACT[®] Formula significantly reduced the incidence of infectious complications in head and neck surgical oncology patients. Length of hospitalization was significantly prolonged in patients with postoperative infections, suggesting potential cost savings with the use of immune-enhancing formulas such as IMPACT[®] Formula.

Summary prepared by Nestlé HealthCare Nutrition. For a copy of the study, please go to the following site: <http://www3.interscience.wiley.com/journal/122656483/abstract>

IMPACT[®] is a registered trademark of Société des Produits Nestlé S.A., Vevey, Switzerland.

August 2010