

ABSTRACT

**Objective:** Perioperative immune-enhancing enteral formula (IEEF) is effective to ~~decrease~~reduce the rate of infectious complications ~~that are infective~~, but whether the chronic use of IEEF ~~is~~are beneficial is not known ~~to us~~. A ~~p~~Prospective randomized clinical trial was performed~~undertaken~~. ~~This was done in order~~ to examine the safety and effectiveness ~~impact~~ of ~~the~~ long-term IEEF on the nutritional condition and immunological status of ~~in~~ non-surgery patients receiving ~~under~~ total enteral nutrition through the gastrostomy access route. A total of 30 patients ~~was~~were randomly assigned to two ~~groups~~ in the present study.

**Comment [A1]:** Some singular nouns refer to one specific thing (the only one of its kind) and therefore, "the" is placed before the noun. Here, "the" is used because a specific route is being referred to.

**Methods:** ~~The~~ Two groups ~~received~~received total enteral nutrition either with IEEF immune-enhancing enteral formula (Group IEEF,  $n = 15$ ) or with regular polymeric enteral formula (Group C,  $n = 15$ ) for 12 weeks. Nutritional and immunological parameters were periodically examined.

**Comment [A2]:** Abbreviations are defined at their first mention in the text and the abbreviated form is used consistently at all subsequent instances.

**Comment [A3]:** Spaces are generally inserted before and after arithmetic symbols.

**Results:** A significant increase ~~of in the~~ serum levels of insulin-like growth factor 1 (~~similar to insulin, IGF-1~~) ~~was~~ noted in Group IEEF throughout the ~~course of the~~ study. Furthermore, the ~~While~~ serum levels of dihomo- $\gamma$ -linoleic acid ~~in Group IEEF was~~ significantly decreased and those ~~serum levels~~ of eicosapentaenoic ~~eicosa-pentaenoic acid~~ and docosahexaenoic acids ~~dochsa-hexaenoic acid were~~ significantly increased in Group IEEF. ~~Serum~~ The serum levels of arginine and ornithine ~~concentrations~~ also increased significantly in Group IEEF ~~were significantly increased~~. No significant difference was noted in the CD4/CD8 ratio and NK cell activity ~~were observed~~ in Group IEEF, ~~but the difference was not significant~~. A significant increase ~~of in the~~ B-cell fraction and ~~the~~ decrease ~~of in the~~ T-cell fraction of peripheral lymphocytes were observed in Group IEEF. There was no infectious or ~~and~~ noninfectious ~~non-~~

~~infectious~~ complications ~~occurred~~ during the study period in both groups, except for a significant increase in ~~the~~ serum ~~levels of~~ BUN and uric acid ~~concentration~~.

**Conclusion:** ~~The long~~Long-term use of IEEF is ~~safe~~ safely performed in non-surgery patients ~~and results~~ ~~in, which enables to cause~~ a significant increase ~~in the of~~ serum ~~levels of~~ IGF-~~1~~ ~~concentration~~ associated with ~~an~~ increase in humoral immunity.

SAMPLE