

Benefits of Post-Operative Oral Protein Supplementation in Gastrointestinal Surgery Patients - A Systematic Review of Clinical Trials

ABSTRACT

The aim of this research was to evaluate published trials examining oral post-operative protein supplementation in patients having undergone gastrointestinal surgery and assessment of reported results.

Database searches (MEDLINE, BIOSIS, EMBASE, Cochrane Trials, Cinahl and CAB), searches of reference lists of relevant papers, and expert referral were used to identify prospective randomized controlled clinical trials. The following terms were used to locate articles: 'oral' OR 'enteral' AND 'postoperative care' OR 'post-surgical' AND 'proteins' OR 'milk proteins' OR 'dietary proteins' OR 'dietary supplements' OR 'nutritional supplements.' In databases that allowed added limitations, results were limited to clinical trials that studied humans, and publications between 1990 and 2014. Quality of collated studies was evaluated using a qualitative assessment tool and the collective results interpreted.

Searches identified 629 papers of which, following review, 7 were deemed eligible for qualitative evaluation. Protein supplementation does not appear to affect mortality but does reduce weight loss, and improve nutritional status. Reduction in grip strength deterioration was observed in a majority of studies, and approximately half of the studies described reduced complication rates. No changes in duration of hospital stay or plasma protein levels were reported. There is evidence to suggest that protein supplementation should be routinely provided post-operatively to this population. However, despite comprehensive searches, clinical trials that varied only the amount of protein provided via oral nutritional supplements (discrete from other nutritional components) were not found. At present, there is some evidence to support routinely prescribed oral nutritional supplements that contain protein for gastrointestinal surgery patients in the immediate post-operative stage.

The optimal level of protein supplementation required to maximise recovery in gastrointestinal surgery patients is effectively unknown, and may warrant further study.

SOURCE

World Journal of Gastrointestinal Surgery. 2016 Jul 27; 8(7):521-532.

*Crickmer, M.,^{1,2}
Dunne, C.,^{1,2}
O'Regan, A.,^{1,2}
Coffey, J.C.,^{1,2,3}
Dunne, S.S.^{1,2}
Graduate Entry
Medical School,
University of
Limerick¹
Centre for
Interventions in
Infection,
Inflammation and
Immunity (4i),
Graduate Entry
Medical School,
University of
Limerick²
Department of
Surgery, University
Hospital Limerick³*