STUDY SUMMARY

Reduction in Healthcare Utilization with Transition to Peptide-Based Diets in Intolerant Home Enteral Nutrition Patients

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Introduction:

Enteral Nutrition (EN) is a life-sustaining therapy in patients with a functioning gastrointestinal (GI) tract who cannot meet nutrient needs with oral intake. The prevalence of home enteral nutrition (HEN) has increased significantly over the past few decades. Major clinical guidelines suggest the use of standard polymeric formulas (SPFs), but unfortunately, not all patients tolerate SPFs. GI intolerance has been reported to be approximately 75%, especially in critically ill EN patients. EN intolerance is associated with morbidity and mortality and includes symptoms such as abdominal distention, bloating, nausea, vomiting and diarrhea, which leads to underfeeding. While medications and holding or discontinuing EN may be attempted to manage GI intolerance, a standardized approach to treatment has not been established. This study suggests a feeding approach that includes the use of peptide based formulas (PBDs) which often contain enzymatically hydrolyzed whey protein and a portion of the fat in the form of medium chain triglycerides (MCT).

Methods:

A retrospective review of the electronic medical records (EMRs) was conducted for patients who received PBDs as exclusive EN from January 1, 2016-May 31, 2018. The objective of this study was to evaluate the tolerance of PBDs in patients at risk for malabsorption or in whom intolerance to SPFs were established.

Results:

During the study period, 588 patients received HEN, and 16.1% of those patients received PBDs. A total of 95 patients received PBDs, with 53 starting directly on PBDs ("direct" PBDs) and 42 switching over from SPFs ("switch group"), following intolerance. The most common primary diagnosis in PBDs users included pancreatic adenocarcinoma (23%), pancreatitis (23%), and GI surgery-related malabsorption (12%). The most common indication for direct PBDs was fat malabsorption (30%), pancreatic insufficiency (25%) and post-operative chyle leak (17%). Eighty-nine percent of direct and 88% of switch PBDs patients received Peptamen® 1.5, Peptamen® with Prebio,1™ or Peptamen® formulas, which contain enzymatically hydrolyzed 100% whey protein and a minimum of 50% of fat in the form of MCT.

The mean duration of PBDs was 42 days and 41 days in the direct PBDs and switch group, respectively. The major symptoms of intolerance included nausea and vomiting, diarrhea, abdominal pain, gas/bloating and abdominal distention, which decreased significantly after switching to PBDs. Healthcare utilization decreased significantly after switching to PBDs, including patient-initiated phone calls related to HEN intolerance, average visits to the ER and average number of scheduled primary care provider/HEN provider visits.

Discussion:

Both, those patients who were at risk for malabsorption and initially started on PBDs, as well as those transitioned from SPFs, tolerated PBDs well with significant improvement in symptoms and were able to meet nutritional needs. There was also a significant decrease in healthcare utilization.

Conclusion:

PBDs are well tolerated by patients at risk for malabsorption and in those who are intolerant to SPFs. While PBDs are increased in cost over SPFs, this cost can be significantly outweighed by the cost of health care utilization, including clinic visits, ER visits or hospitalization.

The full digital ePrint can be accessed here:
http://eorder.sheridan.com/3_0/display/index.php?flashprint=9391

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