

Crohns disease and modulen ibd



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Crohn's disease and Modulen IBD

Crohn's disease is a chronic disease associated with inflammations of the digestive tract. However, most often the lower part of the intestine (the ileum) is affected. Crohn's disease is characterized by periods of remission and exacerbations. Currently, there is no remedy for Crohn's disease; inducing and maintaining remission of disease activity, addressing complications and correcting malnutrition are the most predominant objectives of treatment.

Nestle's Modulen IBD is especially composed for patients with Crohn's disease. Modulen IBD is a casein-based formula that is rich in transforming growth factor-beta (TGF-B2). This nutritionally complete polymeric formula can be given either by the nasogastric route or orally as the sole source of nutrition or as a supplement. According to Nestle, Modulen IBD is suitable for patients over five years of age and can be reconstituted to a variety of caloric densities.

Evaluation of Modulen IBD based on evidence in literature

Both corticosteroids as enteral nutrition (EN) are used in the treatment of Crohn's disease. However, the effectiveness of EN compared to the use of conventional steroids is controversial. Both the 'effectiveness of exclusive EN therapy as primary therapy to induce remission in Crohn's disease' as well as 'the efficacy of EN for the maintenance of remission in Crohn's disease' are recently evaluated.

In a Cochrane meta-analysis of six trials including 192 patients in the EN group and 160 patients in the steroid group, it was concluded that EN can

induce remission of active Crohn's disease. However, this effect was found to be inferior to steroids. These findings are in line with past meta-analyses. In contrary, it is indicated that the effectiveness of EN diverges between adults and children; two pediatric trials (of which one was an abstract) with a total of 58 patients and a previous meta-analysis with 147 children demonstrated that EN equals the efficacy of steroids in the induction of remission in pediatric Crohn's disease. Moreover, no dissimilarities in the effectiveness of elemental nutrition and non-elemental nutrition can be found based on 10 trials including 344 patients.

A recent review of Akobeng and Thomas (2007) showed that supplementary EN can be effective for maintenance of remission in Crohn's disease. Data is based on two recent randomized clinical trials, however, sample sizes were too small to provide statistical power.

Recommendations

It is strongly indicated that steroids are more effective in inducing remission in Crohn's disease compared to EN. Additionally, compliance might be less for exclusive nutritional intervention compared to the use of steroids; several studies demonstrated a higher withdrawal rate in patients that were treated with EN compared to patients receiving steroids. Nonetheless, the use of steroids as a first line treatment in children should be carefully considered for several reasons. First, it is shown that EN in children is equally effective as steroids in the induction of remission. Moreover, the use of steroids is often associated with side effects in children such as impaired growth and bone mineral density [1; 3]; the use of EN is regarded as safe. A long-term randomized pediatric trial of 37 patients demonstrated that withdrawal rates

were comparable in the group of children receiving EN as well as in the group receiving steroid treatment; withdrawal rates in the EN group were even inferior to those observed in adult studies. Accordingly, it is recommended to use EN to induce clinical remission in the growing child suffering from Crohn's disease. Additionally, adults can be treated with EN as an alternative for conventional steroid use if they suffer from intolerances to steroids or if they (strongly) denote to prefer the use of EN above steroids. Since it is suggested that elemental and non-elemental diets are equally effective, it is advisable to treat patients with a polymeric diet such as Modulen IBD since polymeric diets have a higher palatability and compliance is expected to be improved.

Although the current evidence suggests that supplementary EN may be effective for maintenance of remission in Crohn's disease, evidence is not indisputable and it is indicated that more research is needed to confirm these findings. Furthermore, studies should be performed to elucidate the daily amount of EN required to maintain clinical remission in Crohn's disease patients as well as the cost-effectiveness of supplementation as the impact on the quality of life for the patient. Moreover, the compliance of supplementation is expected to be low since the end-point for patients is unclear.

In conclusion, EN is advisable in children during a remission to avoid steroid side-effects such as an impaired growth and development. In special cases, Modulen IBD can be prescribed to adults. For the time being, Modulen IBD supplementation for the maintenance of remission is not advised.

The additional benefits for mucosal healing, growth, nutritional status and quality of life strengthens the argument for considering its use as primary therapy.

Kosten, Compliance. polymeric nutrition is more palatable than elemental nutrition; polymeric diets are less expensive and more palatable than elemental diets, and therefore it would seem reasonable to suggest that there is no place for the elemental diet. Improvement quality of life?

Improvement nutritional status?

Module ibd is a naturally complete powdered feed, designed to meet the specific nutritional needs of people with Crohn's disease. It is free from gluten, lactose and is suitable for vegetarians.

EN by means of a polymeric diet can be given via the nasogastric or per oral route. Module IBD is designed for patients with Crohn's disease, can be used as the sole source of nutrition or as an oral supplement.

The specific polymeric diet selected was a highly palatable, casein-based formula rich in TGF- β 2 (transforming growth factor) which can be taken by mouth.

Crohn's disease is a chronic inflammatory disease of the intestines. Crohn's disease frequently occurs in the lower part of the small intestine (the ileum), however, it can affect any part of the digestive tract, from the mouth to the anus. Crohn's disease is a chronic relapsing condition with a high morbidity. There is no cure for Crohn's disease. Treatment is aimed at inducing and

maintaining remission of disease activity, correcting malnutrition, addressing complications, and thereby improving the quality of life of patients.

The relative merits of corticosteroids and enteral nutrition in the treatment of Crohn's disease remains an area of controversy.

There was a cumulative withdrawal rate of 26% in those receiving enteral nutrition compared to zero in the steroid group.

.. there was a 39% withdrawal rate in the enteral group compared to only 9% in the steroid group.

In the pediatric study, the majority took the feed orally, but if they failed adequate oral consumption, NG feeds were administered (in 23.5% of subjects). The withdrawal rates were similar in both the enteral nutrition (10.5%) as in the steroid arm (11.1%).

The mild active subjects were allowed to take the feeds orally, while those with moderate to severe disease received the diet nasogastrically.

Although polymeric diets are more palatable, failure can occur if inadequate oral administration occurs, and the nasogastric route should then be used to optimize compliance and effectiveness.

Although exclusion of a normal diet/and or the nasogastric route of administration may be viewed as barriers to enteral nutritional therapy, even young children can learn to insert the tube for overnight feeds.

... may suggest that the benefits of enteral nutrition differ between adults and children.

Although the majority of data suggests that patients treated with corticosteroids more often achieve clinical remission, it is well established that corticosteroids fail to induce mucosal healing.

Studies demonstrate a substantial higher drop-out rate for continuing enteral nutritional therapy, whether given orally or by overnight nasogastric intubation.

Enteral nutrition has important growth and developmental benefits and continues to be a recommended therapy for children with Crohn's disease.

The sample sizes of both included studies were small and the studies lacked statistical power. It is therefore difficult to draw any definite conclusions from these data. Future studies should be well-powered and should also investigate the amount of enteral nutritional supplements that will produce optimal benefits. These studies should also assess cost-effectiveness and the impact of supplementation on patients' quality of life.

The optimal daily amount of enteral nutrition that needs to be consumed is unknown.

In individual cases, EN can be provided to adults: steroid intolerance, patient refusal of steroids or undernourished individuals. Treatment can take 4-8 weeks, depending on the patients characteristics.