Diet for Induction and Maintenance of Remission and Re-biosis in Crohn's disease

No registrations found.

Ethical review   Positive opinion
Status   Recruiting
Health condition type   -
Study type   Interventional

Summary

ID

NL-OMON23154

Source
NTR

Brief title
DIETOMICS

Health condition

Crohn's Disease

Sponsors and support

Primary sponsor: Amsterdam UMC
Source(s) of monetary or material Support: Wolfson Medical Center, Israel

Intervention

Outcome measures

Primary outcome

The primary end point will be ITT, sustained Corticosteroid-free remission at week 14 (defined as Pediatric Crohn Disease Activity Index- PCDAI ≤10 without exposure to systemic steroids).

Secondary outcome

1. ITT steroid-free clinical remission at week 8
2. Microbiome composition difference between groups at week 14
3. Reduction of at least 50% from baseline in fecal calprotectin at week 24 for patients who did not change their treatment
4. Steroid and biologic free remission at week 24.
5. Need for additional treatment to achieve remission by week 14
6. Transmural healing as assessed by MRE in dietary responsive disease at week 52
7. The proportion of patients who respond with the susceptible genes compare to those without the susceptible genes
8. Microbiome composition difference between dietary responders to healthy controls at week 24

Study description

Background summary

Background of the study:
Exclusive enteral nutrition (EEN) is an established but difficult to perform method for induction of remission and is not practical or effective for maintenance of remission. It entails drinking a liquid medical formula for 8 weeks as the sole intake of food. Refusal to use or to adhere to this therapy is not uncommon and leads to use of other non- dietary strategies in children including steroids and immunosuppression. Partial enteral nutrition (PEN) appears to have some benefit in maintenance of remission in adults but paediatric data are conflicting. There is no prospective pediatric controlled trial to provide evidence. The Crohn's Disease Exclusion Diet (CDED) with partial enteral nutrition has been shown to be effective for induction of remission in children with mild to moderate disease. We have developed a maintenance strategy based on the CDED that appears to maintain remission while allowing increased access to table foods over time.

Objective of the study:
To prove that sustained clinical remission can be maintained at week 14 with a new dietary strategy that involves only 2 weeks of EEN with Modulen and 22 weeks of an exclusion diet involving selected table foods.
We hypothesize that use of EEN for only 2 weeks followed by partial enteral nutrition with the CDED diet with PEN will be superior in sustaining Corticosteroid-free remission by week 14 compare to 8 weeks of EEN followed by PEN and free diet, and that this remission will be maintained through week 24 while the diet is maintained. From a translational viewpoint, we intend to compare the effects of dietary therapy on the microbiome, including microbial function and mucosa associated bacteria, between patients using standard EEN and free diet and those on modified EEN and CDED with PEN. We will also compare changes in microbiome to healthy controls, siblings and parents. We further hypothesize that the CDED will promote butyrate producing species while EEN will reduce these species.

Study objective

We hypothesize that use of EEN for only 2 weeks followed by partial enteral nutrition with the CDED diet with PEN will be superior in sustaining Corticosteroid-free remission by week 14 compare to 8 weeks of EEN followed by PEN and free diet, and that this remission will be maintained through week 24 while the diet is maintained. From a translational viewpoint, we intend to compare the effects of dietary therapy on the microbiome, including microbial function and mucosa associated bacteria, between patients using standard EEN and free diet and those on modified EEN and CDED with PEN. We will also compare changes in microbiome to healthy controls, siblings and parents. We further hypothesize that the CDED will promote butyrate producing species while EEN will reduce these species. In addition, we hypothesize that patients with genetic predisposition will be less responsive to dietary intervention.

Study design

week 0,2,(3 phone visit),5 (optional),8, 9 (phone visit),14,15,18 (call or email),24,52

Intervention

Modified CDED

Contacts

Public
AmsterdamUMC
Charlotte Verburgt

0650063243
Scientific
AmsterdamUMC
Charlotte Verburgt

0650063243

Eligibility criteria

Inclusion criteria

1. Established diagnosis of Crohn's disease.
2. Patients with mild to severe active Crohn's disease (15≤PCDAI≤47.5)
3. Ages 8-18

4. Duration of disease ≤ 36 months
5. Active inflammation (CRP≥0.6 mg/dL or ESR≥20 or Calprotectin≥200 mcg/gr during screening
6. Patients with B1, P0 uncomplicated disease at enrollment
7. Patients with disease defined as L1, L4, L3 or L2 limited to cecum, ascending or transverse colon or L2 with leftsided disease with terminal ileum or small bowel involvement in the past by the Paris classification (patients with macroscopic disease)
8. Signed informed consent

Inclusion criteria comments:
1. Patients with stable medication (IMM/5ASA) use or no medication use for the past
2. Patients with few aphthous ulcers in the rectosigmoid only can be enrolled as L2

Exclusion criteria

1. Patients with very mild disease (PCDAI 12.5-15) or very severe disease (PCDAI >47.5)
2. Pregnancy
3. Patients who have disease confined to the colon involving the descending colon, rectum or sigmoid colon and no prior history of small bowel involvement
4. Patients who have active extra intestinal disease (such as arthritis, uveitis, pyoderma gangresom, erythemanodosum, etc.)
5. Patients with complicated disease (B2, B3)
6. Patients with recent onset use of an immunomodulator <8 weeks, or dose change in past 8 weeks.
7. Patients with past or current use of biologics, or patients who currently use systemic steroids or used steroids over the last 8 weeks
8. Patients who have active perianal disease (active fistula or abscess)
9. Patients who have positive stool cultures with relevant pathogens, or positive tests for parasites or C. difficile. Stool tests are mandatory only if diarrhea is present.
10. Patients with fever > 38.3
11. Documented milk protein allergy

Exclusion criteria comments:
1. Aphthous stomatitis is not an exclusion criterion. Isolated aphthous ulcers of the rectosigmoid need not be excluded as left sided L2 only
2. Patient may receive a stable dose immunomodulator or start thiopurines at or after week 4 or Methotrexate at week 6, since the effect of thiopurine starts after 8 weeks and that does not affect the primary endpoint
remission at week 8.
3. Patients are allowed use of Omeprazole if ulcers or erosions are present in the stomach or duodenum.
4. Patients may receive antibiotics for intercurrent infections for up to 10 days with the exception of quinolones,metronidazole, rifaximin or oral vancomycin; antibiotics used must be registered in the CRF.
5. Patients with skin tags or fissures can be enrolled.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-11-2020
Enrollment:	10
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	21-04-2021
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL9417
Other	METC AMC : METC 2020_104

Study results