

Faecal microbiota transplantation in ulcerative colitis

Submission date 02/07/2015	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 24/07/2015	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 09/04/2019	Condition category Digestive System	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Ulcerative colitis (UC) is a chronic, relapsing debilitating form of inflammatory bowel disease. The number of people suffering from the condition in the UK is increasing. The cause is unknown but is considered to result from the body's response to bacteria found in the large intestine in genetically susceptible individuals. Current treatment aims to dampen the immune response with daily tablets and enemas, although symptoms often return once medication is stopped. On occasion, medical treatment doesn't work and surgery to remove the large intestine is required. It has been suggested that if the bacteria present in the large intestine in UC patients were replaced with those found in healthy people then the immune damage would reverse. Administration of healthy bacteria to repopulate the bowel (faecal bacteriotherapy, FBT) is a recommended treatment for certain bowel infections, such as *Clostridium difficile* colitis, and the therapy has been shown to be safe and work well. The first report of FBT as a treatment for UC was in 1989, with reports of patients remaining in remission for up to 25 years. Studies are however limited to small patient series with variable methodology, including route of administration and dose frequency, and a lack of standardisation. This study aims to find out the optimal conditions in which to conduct a large scale study of FBT in patients with limited UC. We want to know the optimal frequency of FMT administration by the enema route (single dose or 5 doses) in patients with inflammation limited to the rectum and sigmoid colon compared with a control group.

Who can participate?

Patients aged at least 18 with UC.

What does the study involve?

Participants are randomly allocated to one of three groups. Those in group 1 are given a faecal microbiota transplant (FMT) by retention enema on one occasion. Those in group 2 are given a FMT on five consecutive days. Those in group 3 act as controls and are given bowel purgatives and antibiotic preparation and do not receive FMT. Response to the treatment is measured by endoscopic assessment at 12 weeks, patient symptom scores, blood testing, tissue biopsy and measurement of tissue inflammatory cytokine levels. The faecal bacterial profile is monitored to

ensure that the transplant is durable. Donors are carefully screened for infectious diseases to minimise the risk of transmission. The results of the study will be used to plan a large scale study to establish FMT as a viable therapy in UC patients.

What are the possible benefits and risks of participating?

The benefits of participating in the trial are that patients may experience improvement in their colitis symptoms as reported in previous small studies. There is a small but theoretical risk of transmission of as yet unknown infectious disease, despite through systematic testing of donated material for known pathogens in accordance with current guidelines.

Where is the study run from?

Abertawe Bro Morgannwg University LHB (Wales)

When is the study starting and how long is it expected to run for?

September 2015 to March 2018

Who is funding the study?

NISCHR Pathway to Portfolio (Wales)

Who is the main contact?

Professor Dean Harris

Contact information

Type(s)

Scientific

Contact name

Prof Dean Harris

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Study information

Scientific Title

Faecal Microbiota Transplantation in Ulcerative Colitis: an Interventional randomised single blind phase II trial

Acronym

FMTUC

Study objectives

To estimate the magnitude of treatment response of ulcerative colitis to FMT

Ethics approval required

Old ethics approval format

Ethics approval(s)

Wales REC6 ethics committee, 21/09/2015, ref: 15/WA/0262

Study design

Interventional randomised single-blind phase II trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Ulcerative colitis

Interventions

Faecal microbiota transplant (FMT) will be administered by retention enema to patients either once only (group 1) or on five consecutive days (group 2). A third group with active disease will act as controls and receive bowel purgatives and antibiotic preparation without active administration of FMT. Randomisation to each group will be web-based.

Intervention Type

Other

Primary outcome(s)

1. Remission of UC (mucosal healing) at 12 weeks as assessed by sigmoidoscopy, and patients response. Will also be measured utilising the Mayo scoring system for assessment of ulcerative colitis activity at 12 weeks, with remission defined as a Mayo score ≤ 2 with an endoscopic Mayo score of 0.
2. Successful engraftment of donor faecal microbiota at 12 weeks as analysed by 16S sequencing

Key secondary outcome(s)

1. Rate of recruitment of patients
2. Disease specific severity scoring after treatment
3. Histological grading of colitis severity after treatment
4. Mucosal immunological response to treatment
5. Rate of development of adverse effects of FMT

Completion date

30/09/2020

Eligibility

Key inclusion criteria

1. Newly diagnosed histologically confirmed ulcerative colitis with inflammation limited to the rectum or rectosigmoid (within 40cm of anal verge as measured by flexible sigmoidoscope)
2. Age 18 years and above
3. Able to give full informed written consent
4. Willing to return for sequential FMT dosing and endoscopic assessment
5. Not in receipt of standard medical treatment for colitis such as steroids or 5-ASA ie treatment naive

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

1. Patients without a definitive diagnosis of UC (for example diagnosis of Crohn's disease or infectious colitis)
2. Have colitis extending beyond 40cm from the anal verge
3. Have severe acute colitis (defined as greater than 6 bloodstained stools per 24 hrs with one of the following: pulse rate >90/ temperature >37.8°C/ haemoglobin <105g/L / ESR>30)
5. Abdominal tenderness on examination
6. Already commenced standard medical therapy for UC
7. Contraindication to oral bowel preparation
8. Allergy to study antibiotics
9. Age less than 18
10. Patient is within a vulnerable group
11. Are pregnant
12. Are immuno-suppressed e.g. transplant patient
13. Known communicable disease; at least 2 weeks full recovery from infectious disease e.g. chickenpox
14. Systemic autoimmunity, or atopic diseases
15. Previous prosthetic implant (for example metallic heart valve, joint replacement, ventriculoperitoneal shunt, cardiac stent)
16. Chronic pain syndromes (for example: fibromyalgia, chronic fatigue)
17. Neurologic, neuro-developmental or neurodegenerative disorders
18. Depression (requiring therapy)
19. Obesity (BMI>35)
20. Malignancy
21. Use of antibiotics for any indication within the past 3 months
22. Foreign travel to areas of enteric disease prevalence within 3 months
23. High risk sexual behaviour (examples: sexual contact with anyone with HIV/HTLV/AIDS or

hepatitis B/C carrier, men who have sex with men (MSM))
24. Known exposure to HIV or hepatitis B/C
25. Current/previous use of injected drugs or intranasal cocaine
26. Tattooing, piercing, cosmetic botulinum toxin (Botox) or permanent makeup within 120 days (in line with Welsh Blood Transfusion guidelines)
27. Recent transfusion, transplant or skin graft
28. Risk factors for variant Creutzfeldt-Jakob disease e.g. blood transfusion or transplant after 1st January 1980

Date of first enrolment

30/09/2015

Date of final enrolment

31/03/2020

Locations

Countries of recruitment

United Kingdom

Study participating centre

Abertawe Bro Morgannwg University LHB

Port Talbot

United Kingdom

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Sponsor information

Organisation

Abertawe Bro Morgannwg University LHB (UK)

ROR

<https://ror.org/04zet5t12>

Funder(s)

Funder type

Government

Funder Name

NISCHR Pathway to Portfolio

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	protocol	18/10/2018		Yes	No
HRA research summary			28/06/2023	No	No