ISRCTN67590499 https://doi.org/10.1186/ISRCTN67590499

Rifaximin in patients with portal hypertension due to schistosomiasis in Zambia

Submission date
22/08/2014

Recruitment status
No longer recruiting

Registration date
30/09/2014

Overall study status
Completed

Last Edited
24/01/2019

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
There is a form of Bilharzia (a parasite) that affects the liver and is prevalent in the tropical countries. Parts of Zambia are severely affected with this disease. Long-standing bilharzia in the liver can lead to increased blood pressure in the portal vein (portal hypertension), which connects the intestine to the liver. This leads to accumulation of scar tissue in the liver and then dilated blood vessels in the food pipe. When these bleed, the blood loss into the stomach can be fatal; this is a common cause of hospital admission in Zambia. We know that both scarring of liver substance (known as cirrhosis) and bilharzia affecting the liver can cause portal hypertension. These two diseases are similar. The major difference is that in bilharzia affecting the liver, there is scarring around blood vessels (periportal fibrosis) and the function remains normal, while in liver cirrhosis there is involvement of liver substance and the liver function is affected depending on the how much of the liver is damaged. In cirrhosis, bacteria leaking out of the bowels into the blood circulation is associated with increased portal pressure and is the major cause of hospital admissions and death. It is not clear whether the leaking out of bacteria from the bowels into the blood circulation occurs in patients with bilharzia of the liver in the same way as in cirrhosis. We set out to study this problem in patients affected with bilharzia by using rifaximin. Rifaximin is a drug that is given by mouth and it acts locally on bacteria in the bowels as it is not significantly absorbed. We suggest that giving it orally may lead to a reduction in markers that measure the evidence of bacteria leaking from the bowels, hence suggesting that the leakage occurs in these patients. Use of antibiotics to prevent leakage of bacteria into the bloodstream from the bowels has shown a lot of benefit in cirrhosis by reducing portal vein pressure. The aim is to find out if the same thing might be true in bilharzia of the liver.

Who can participate?
Adults with bilharzia of the liver

What does the study involve?
One group receive rifaximin orally twice per day plus usual care for 42 days while the other group do not receive rifaximin but continue on the usual care. You have to take the tablets once per day. In addition to checking markers that measure leakage of bacteria into the bloodstream, we are going to measure other markers that indicate inflammation and those that measure scarring of the liver. These markers are measured in blood samples. You are asked to give blood

samples at the start of the study and on day 42 and day 90. Thereafter you are followed up for another 3 months.

What are the possible benefits and risks of participating?
Patients may benefit from close monitoring of the disease. Risks include discomfort from the needle prick when drawing blood and side effects of rifaximin, which could include headache, dizziness, bloating of tummy, constipation, diarrhea and fever; however, these are uncommon and non-specific.

Where is the study run from?
University of Zambia (Zambia)

When is the study starting and how long is it expected to run for?
January 2014 to December 2015

Who is funding the study?
The Wellcome Trust (UK)

Who is the main contact?
Dr Edford Sinkala
sinkalaeddie@yahoo.com

Contact information

Type(s)
Scientific

Contact name
Dr Edford Sinkala

Contact details
Department of Internal Medicine
University of Zambia School of Medicine
University Teaching Hospital
Nationalist Road
Lusaka
Zambia
10101
-
sinkalaeddie@yahoo.com

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

TROPGAN/007

Study information

Scientific Title
Rifaximin in patients with portal hypertension due to schistosomiasis in Zambia: an open-label trial

Acronym
RFX-SCHISTO

Study objectives
One of the two major forms of schistosomiasis leads to portal hypertension and then oesophageal varices. We have laboratory evidence that, in a way similar to cirrhosis, bacterial translocation may exacerbate the problem and drive disease progression. This trial is intended to explore the hypothesis that rifaximin may reduce markers of microbial translocation, fibrosis, and inflammation in patients with schistosomiasis mansoni-related portal hypertension in Zambia.

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Zambia Biomedical Research Ethics Committee, 21/08/2012, ref: 00-07-12

Study design
Open-label rifaximin given to patients in one arm and usual care only given to patients in the other arm

Primary study design
Interventional

Secondary study design
Non randomised study

Study setting(s)
Hospital

Study type(s)
Treatment

Participant information sheet
Not available in web format, please use the contact details to request a patient information sheet

Health condition(s) or problem(s) studied
Schistosomiasis, oesophageal varices, portal hypertension

Interventions

One group of 40 Zambian adults with bilharzia of the liver in addition to receiving standard care will receive rifaximin 600 mg orally twice per day for 42 days while the other group will not receive rifaximin but will continue on the usual standard care. Standard care includes being treated for schistosomiasis with praziquantel and receiving long-term beta blockers (e.g., propranolol) to prevent variceal bleeding. In some instances variceal banding is done as part of standard care.

In addition to checking markers that measure leakage of bacteria into the bloodstream, we are going to measure other markers that indicate inflammation and those that measure scarring of the liver. These markers will be measured in blood samples. These patients will be asked to give blood samples on days 0, 42 and 90 during routine follow-up visits.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Rifaximin

Primary outcome measure
Changes in markers of translocation

Secondary outcome measures
1. Changes in markers of fibrosis
2. Changes in inflammatory markers
3. Re-bleeding episodes
4. Death

Baseline information will be captured using a questionnaire and blood will be collected for baseline markers of translocation, fibrosis and inflammation. These will be measured using ELISA. Then these patients will be followed up on day 42, day 90 and thereafter for 3 months, making a total of 6 months. At each visit the questionnaire will be administered and blood will be collected for the above assays

Overall study start date
10/01/2014

Completion date
31/08/2016

Eligibility

Key inclusion criteria
1. Oesophageal varices
2. Schistosomiasis seropositive

Participant type(s)
Patient

Age group
Adult

Sex
Both

Target number of participants
80

Key exclusion criteria
1. HIV seropositive
2. Cirrhosis
3. Hepatitis virus B or C infection

Date of first enrolment
10/01/2014

Date of final enrolment
31/12/2015

Locations

Countries of recruitment
Zambia

Study participating centre
University of Zambia
Lusaka
Zambia
10101

Sponsor information

Organisation
University of Zambia (Zambia)

Sponsor details
School of Medicine
Research Support Centre
Nationalist Road
Lusaka
Zambia
10101
-
mkatubulushi@yahoo.co.uk

Sponsor type
University/education

ROR
https://ror.org/03gh19d69

Funder(s)

Funder type
Charity

Funder Name
Wellcome Trust (UK) - Southern Africa Consortium for Research Excellence (SACORE)

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/04/2018	24/01/2019	Yes	No