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HBsAg clearance with pegylated interferon and tenofovir combination

Submission date
20/08/2016

Recruitment status
No longer recruiting

Registration date
26/08/2016

Overall study status
Completed

Last Edited
24/08/2016

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[_] Record updated in last year

Plain English summary of protocol

Background and study aims
Hepatitis B is an infection of the liver caused by the hepatitis B virus (HBV). Nucleotide /nucleoside analogs are effective drugs for reducing the replication of HBV, but only a small percentage of patients are free of HBV infection (clearance) even after prolonged treatment. Hence, treatment is often continued for an indefinite period. Pegylated interferon alpha 2a (Peg IFN) is a drug that stimulates the immune system to attack HBV. The aims of this study are to find out whether adding Peg IFN to ongoing tenofovir treatment helps HBV patients to achieve infection clearance.

Who can participate?
Chronic HBV patients, aged over 18, who are taking tenofovir (a nucleotide analog)

What does the study involve?
Participants are randomly allocated to one of two groups. One group receives an injection of Peg IFN on a weekly basis for one year in addition to the tenofovir that they are already taking. The other group continue taking tenofovir on its own. Both groups of patients are regularly followed up for any side effects of the medication. Participants who achieve infection clearance eventually stop anti-viral treatment.

What are the possible benefits and risks of participating?
The benefit of Peg IFN is that more patients may achieve infection clearance, allowing them to stop anti-viral treatment. Achieving infection clearance with Tenofovir alone is unlikely, requiring the patient to pay for anti-viral treatment indefinitely. The most common side effects of Peg IFN are flu-like symptoms, tiredness, weakness, loss of appetite, skin reactions and insomnia. More serious side effects are hypothyroidism, worsening liver function and aggravation of autoimmune diseases, irritability, anxiety, depression and suicidal thoughts. Though these are known side effects, they are rare.

Where is the study run from?
King Faisal Specialist Hospital and Research Centre (Saudi Arabia)

When is the study starting and how long is it expected to run for?
April 2013 to February 2016

Who is funding the study?
King Faisal Specialist Hospital and Research Centre (Saudi Arabia)

Who is the main contact?
Dr Musthafa Peedikayil

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Protocol serial number
-

Study information

Scientific Title
HBsAg clearance in chronic hepatitis B patients with add-on pegylated interferon alpha 2a to ongoing tenofovir treatment: an open-label randomized controlled study

Study objectives
By adding Peg IFN therapy to patients who already have the virological response with tenofovir will not increase the rate of hepatitis B surface antigen (HBsAg) clearance and or seroconversion in chronic hepatitis B patients.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethics committee of King Faisal Specialist Hospital and Research Centre, 18/03/2013, ref: 2131012

Study design

Open-label prospective randomized controlled study

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Chronic hepatitis B

Interventions
Patients with chronic hepatitis B (HBV) who were being treated with Tenofovir for more than six months and whose HBV DNA has been below 2000 IU/ml were eligible for recruitment. These patients were randomized into two groups. Random numbers were generated by a computer program.

Group A patients received pegylated interferon (Peg IFN) alpha 2a and tenofovir for one year followed by tenofovir indefinitely until they achieved study end point. Peg IFN alpha 2a was given at a dose of 180 mcg subcutaneously every week for a total of 48 weeks; these patients also continued Tenofovir 300 mg orally. The group A patients had clinic visits at week 2, week 4, week 12, week 24, week 36, and week 48; and then six monthly for one more year.

Group B patients were treated with tenofovir alone. Patients were seen every three months in the first year and then six monthly in the second year.

Patients in both groups received tenofovir 300 mg daily until they achieved HBsAg clearance or seroconversion. The duration of the study was for two years from the date of the first dose of peg IFN or day 1 of recruitment for patients in group B.

During each visit compliance, side effects of the drugs, and treatment response were assessed. Necessary laboratory and imaging studies were carried out before recruitment and while they were in the trial.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Pegylated interferon alpha 2a, tenofovir

Primary outcome(s)
HBsAg clearance and development of anti-HBs antibodies, measured at regular periods before, during and after the trial period

Key secondary outcome(s))
Correlation between HBsAg clearance and HBsAg levels at different stages of the study period (pretreatment, on treatment and end of treatment HBsAg level)

Completion date
04/02/2016

Eligibility

Key inclusion criteria
1. Male or female patients above 18 years of age
2. Chronic HBV patients receiving Tenofovir 300 mg orally daily for a minimum of 6 months
3. HBeAg-positive or HBeAg-negative patients
4. HBV DNA <2000 IU/ml before recruitment
5. HBsAg should be positive, and HBsAg titer should be measurable from the serum

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
1. Side effects to medications or previous intolerance to Tenofovir or Peg IFN
2. Impaired renal function with a GFR <50
3. Hemoglobin <12 gm/L in women and <13 gm/L in men
4. Severe thrombocytopenia: platelets <75000
5. Neutropenia absolute neutrophil count (ANC)< 1000
6. Combined infection with HCV, HIV, HDV
7. Drug-induced, alcohol related or autoimmune liver disease
8. Patients with severe depression or other significant psychiatric illness
9. Previous history of lactic acidosis
10. Advanced cardiac, pulmonary, renal or neurological diseases
11. Liver cirrhosis with Child score (CTP) seven and above
12. Decompensated cirrhosis
13. Pregnancy and lactation

Date of first enrolment
16/04/2013

Date of final enrolment
04/02/2014

Locations

Countries of recruitment
Saudi Arabia

Study participating centre
King Faisal Specialist Hospital and Research Centre
MBC 46
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11211

Sponsor information

Organisation
King Faisal Specialist Hospital and Research Centre

ROR
https://ror.org/05n0wgt02

Funder(s)

Funder type
Hospital/treatment centre

Funder Name
King Faisal Specialist Hospital and Research Centre

Alternative Name(s)
King Faisal Specialist Hospital

Funding Body Type
Private sector organisation

Funding Body Subtype
Other non-profit organizations

Location
Saudi Arabia

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Available on request