Cohort of hepatitis B research of Amsterdam

Published: 01-09-2011
Last updated: 15-05-2024

The primary objective is to elucidate the question whether historic HBV viral load (in samples taken from 1989 * 1996 during pregnancy) is associated with the risk of HBV-related cirrhosis or mortality in a cohort of non-Asian individuals with...

Ethical review	Approved WMO
Status	Pending
Health condition type	Hepatic and hepatobiliary disorders
Study type	Observational invasive

Summary

ID

NL-OMON36693

Source
ToetsingOnline

Brief title
COBRA

Condition

- Hepatic and hepatobiliary disorders
- Viral infectious disorders

Synonym
Liver cirrhosis; Hepatitis B

Research involving
Human

Sponsors and support

Primary sponsor: Gemeentelijke GezondheidsDienst (GGD) Amsterdam
Source(s) of monetary or material Support: Gilead Sciences

Intervention

Keyword: Cirrhosis, Hepatitis B, Mortality, Viral load

Outcome measures

Primary outcome

Main study parameters are any of following complications:

-liver cirrhosis

-death

Secondary outcome

Secondary study parameters are:

-hepatocellular carcinoma

-liver transplantation

-liver failure (Child-Pugh B or C)

-viral load of hepatitis B (comparison of historic and follow-up serum samples)

-parameters of activation, exhaustion and apoptosis in various subsets of

immunological cells

Study description

Background summary

According to the report from the World Health Organization (WHO) in 2009 worldwide 2 billion people are infected with the hepatitis B virus (HBV) of which 350 million are chronically infected. Hepatitis B is also responsible for 500,000 to 700,000 annual deaths. HBV is a DNA virus, a member of the hepadna viruses of which 8 different genotypes exist.
Transmission of HBV occurs through blood-blood or sexual contact in the Western world while perinatal transmission is the main cause of transmission in Asia and Africa. After HBV infection, clinical manifestations vary from an asymptomatic course to a pronounced jaundice. In contrast to perinatal transmission where over 90% of the newborns become chronically

infected, acute HBV infection later in life results in a high likelihood of spontaneous clearance. In chronically infected HBV patients over time the immune system is responsible for progressive fibrosis of the liver that eventually lead to other developing cirrhosis. If cirrhosis has been established, there is an annual risk of developing hepatocellular carcinoma (HCC) of 1.3 - 2.4%. The 5-year cumulative risk of developing HCC in cirrhotic patients is 17% in East Asia and 10% in Western Europe
A number of studies have identified predictors for progression to advanced fibrosis and occurrence of complications. A large Taiwanese prospective cohort study of 3582 untreated HBV-infected patients showed the serum hepatitis B viral load as a strong predictor of cirrhosis, regardless of the HBV e-antigen status and serum alanine transaminase (ALT). The cumulative incidence of cirrhosis ranged from 4.5% in patients with a viral load below 300 copies / mL to 36.2% in patients with a viral load of 10x6 copies / mL or more.
It is unclear whether these data can be extrapolated to the non-Asian population (Caucasians and Africans). First, there are geographical differences in HBV genotype. In Asia, genotype B and C are mainly expressed, while in Europe genotype A and D are mainly expressed. There are also differences in habits or HLA expression that may lead to a difference in the development of HBV-infected liver disease between Caucasians and Asians (and Africans).
As a part of the HBV-infected population lives in Western Europe and the United States, we believe it is important to investigate whether there is an association between hepatitis B viral load and the development of HBV-related complications in a non-Asian population.

Study objective

The primary objective is to elucidate the question whether historic HBV viral load (in samples taken from 1989 * 1996 during pregnancy) is associated with the risk of HBV-related cirrhosis or mortality in a cohort of non-Asian individuals with chronic hepatitis B infection.

Study design

Retrospective cohort study

Study burden and risks

To date, studies describing the association between the level of serum hepatitis B viral load and the increased risk of secondary complication development are lacking in non-Asian patients. This study gives important information about the association between the serum hepatitis B viral load and occurrence of secondary complications in a non-Asian patient population with

only a single venapunction and a non-invasive fibroscan. The benefit is not only related to future subjects but also for patients who are participating in this study.
Participation gives the patients more insight into their illness, their current medical condition and possible secondary complications in relation to the HBV infection. In a broader sense, when proven that high serum hepatitis B viral load could lead to more secondary complications, this could have important therapeutic and prognostic consequences in the management of hepatitis B for that patient in the near future. Therefore, we consider the risk to and burden for the subject low proportion to the potential value of the research.

Contacts

Public
Gemeentelijke GezondheidsDienst (GGD) Amsterdam

Postbus 2200
1000 CE Amsterdam
NL
Scientific
Gemeentelijke GezondheidsDienst (GGD) Amsterdam

Postbus 2200
1000 CE Amsterdam
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

All subjects must meet the following criteria:
-HBsAg-positivity
-Historic serum sample available from the screening programme at the Public Health Service
-Still living in the greater Amsterdam area and address traceable by general practitioners or death confirmed by general practitioner.
-Non-Asian (both parents not born in Asia)
-Between 18-65 years old
-Informed consent

Exclusion criteria

Exclusioncriteria are:
- Subjects coinfected with human immunodeficiency virus (HIV) or hepatitis C virus (HCV)
- Subjects who are unable to come to the outpatient clinic
- Subjects incapable of informed consent due to legally incompetence

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-01-2011
Enrollment:	172
Type:	Anticipated

Ethics review

Approved WMO

Application type:	First submission
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

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

ID: 21330
Source: Nationaal Trial Register
Title:

In other registers

Register	ID
CCMO	NL34329.018.10
OMON	NL-OMON21330