Replication of an association study and validation of three predictive models of proliferative vitreo-retinopathy

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To perform an external (geographic and temporal) validation of predictive models for estimating the probability of PVR following primary RD using a subgroup of SNPs from a total of 197 in 30 candidate genes previously studied.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Eye disorders congenital
Study type	Observational invasive

Summary

ID

NL-OMON33115

Source
ToetsingOnline

Brief title
Validation of predictive models of PVR

Condition

- Eye disorders congenital
- Retina, choroid and vitreous haemorrhages and vascular disorders

Synonym
proliferative viteoretinopathy

Research involving
Human

Sponsors and support

Primary sponsor: Oogziekenhuis Rotterdam
Source(s) of monetary or material Support: Instituto Universitario de Oftalmobiologia

Aplicada (IOBA);Valladolid;Spain

Intervention

Keyword: genetic markers, proliferative vitreo-retinopathy, retinal detachment, validation study

Outcome measures

Primary outcome

Frequency of SNPs.

Secondary outcome

NA

Study description

Background summary

Following the association study and based on its genotype data, we identified risk genetic markers of PVR and set up three predictive models. Machine-learning methods have been used to predict the probability of developing PVR after primary rhegmatogenous retinal detachment (RD) using subsets of 197 SNPs in 30 candidate genes. The model is developed so that it optimally fits the data and predicts the patients* outcome in the data set as accurately as possible, using the original data set. Previous to applying predictive models in clinical practices, it is necessary to establish if the model offers realistic estimations. The generalizability of models or external validation will be proved by a new sample, the validation sample.

Study objective

To perform an external (geographic and temporal) validation of predictive models for estimating the probability of PVR following primary RD using a subgroup of SNPs from a total of 197 in 30 candidate genes previously studied.

Study design

Case control validation study.

Study burden and risks

Participants do not benefit. Risks are negligible.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Retinal detachment.

Exclusion criteria

None.

Study design

Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	08-04-2009
Enrollment:	300
Type:	Actual

Ethics review

Approved WMO

Date:	25-03-2009
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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
CCMO	NL26659.078.09