VAI pilot studie in glioblastomen

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON21865

Source
NTR

Brief title
VAI pilot study in glioblastoma

Health condition

Glioblastoma, Glioblastoom
Brain tumour, hersentumor

Sponsors and support

Primary sponsor: University Medical Center Groningen (departments of radiology and ngmb)
Source(s) of monetary or material Support: Van der Meer-Boerema stichting grant: B.R.J. van Dijken
University of Groningen (MD/PhD grant: B.R.J. van Dijken, Mandema grant: A. van der Hoorn)

Intervention

Outcome measures

Primary outcome

The primary outcome is to establish the practicability abd diagnostic accuracy of VAI-MRI for the treatment evaluation of glioblastoma.

Secondary outcome

n/a

Study description

Background summary

Glioblastomas (GBM) are the most malignant brain tumours with low survival rates. Treatment failure causes this tumour to inevitably recur, making close monitoring of GBM patients essential. The gold standard for follow-up is anatomical MR imaging based on contrast enhancement. However, this imaging method is hindered by pseudo-progression which can resemble true tumour progression, but is in fact due to treatment effects.

Functional imaging methods have been employed to overcome the limitations of anatomical MRI by measuring biological aspects of the tumour. Tumour neovascularisation, a hallmark of glioblastoma progression, can be visualised by perfusion MRI. Current perfusion MRI techniques rely on leakage from vessels and do not accurately demonstrate microvasculature.

Vessel Architectural Imaging (VAI) is a novel perfusion MRI technique which can acquire a plethora of additional perfusion parameters, such as oxygenation and vessel diameter. The practicability and accuracy of VAI for differentiating treatment effects from tumor progression in glioblastoma treatment evaluation has not been studied before.

This study aims to establish the practicability and diagnostic accuracy of VAI-MRI in treatment evaluation of glioblastoma.

Study objective

Can vessel

Study design

Ten treated glioblastoma patients with a new enhancing lesion on conventional follow-up MRI will undergo VAI-MRI. The definite diagnosis will be made radiologically according to the appropriate guidelines (RANO criteria).

Intervention

n/a

Contacts

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Eligibility criteria

Inclusion criteria

- Histological confirmed glioblastoma after standard treatment

- New contrast enhancing lesion on follow-up MRI

- Written informed consent

Exclusion criteria

- Minors (<18 years)

- Residual enhancement on post-operative MRI

- History of previous new enhancing lesion on follow-up MRI

- Treatment different than standard treatment

- Contraindication for MRI (ferromagnetic material in body, pregnancy, claustrophobia)

Study design

Design

Study type:	Observational non invasive
Intervention model:	Crossover
Allocation:	Non controlled trial
Masking:	Single blinded (masking used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-07-2018
Enrollment:	10
Type:	Anticipated

Ethics review

Not applicable

Application type:	Not applicable

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
NTR-new	NL6859
NTR-old	NTR7037
Other	Universitair Medisch Centrum Groningen : ABR65208

Study results