Cognitive deficits in brain tumor patients after neurosurgery: incidence, severity and prediction of outcome

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Objectives: 1) To describe the incidence and severity of cognitive impairments in patients with glioma and meningiomas before, and 3 and 12 months after surgical treatment. 2) To develop models based on presurgical sociodemographic, clinical...

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	-

Samenvatting

ID

NL-OMON26139

Bron
Nationaal Trial Register

Aandoening

Primary brain tumor; glioma; meningioma; neurosurgery; objective cognitive functioning; cognitive deficits; neuropsychological impairment

Primaire hersentumor; gliomen; meningeomen; hersenoperatie/neurochirurgie; gezonde controles, objectief cognitief functioneren, cognitieve stoornissen

Ondersteuning

Primaire sponsor: St Elisabeth Hospital, Tilburg
Tilburg University
Overige ondersteuning: ZonMw

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Changes in objective cognitive functioning from pre-surgery to post-surgery, as measured with a computerized neuropsychological test battery, CNS Vital Signs.

Toelichting onderzoek

Achtergrond van het onderzoek

Deficits in cognitive functions are common in patients with primary brain tumors. These cognitive deficits can be very subtle, and easily go undetected on routine clinical examination. However, they are often very disruptive for a person’s quality of life, preventing return to a normal social and professional life.

Preservation of cognitive functioning is an important outcome measure in glioma surgery, and essential for quality of life. At present, unfortunately, it is largely unknown how surgery affects cognition. A better understanding of the variables that predict the impact of surgery on cognition is of significant importance not only to patients and their families, but also to neurosurgeons. It provides neurosurgeons with evidence-based information about possible individual risk of surgery which will steer clinical decision making and enables to inform patients better about the consequences of surgery on long-term cognitive functioning.

Doel van het onderzoek

Objectives:

1) To describe the incidence and severity of cognitive impairments in patients with glioma and meningiomas before, and 3 and 12 months after surgical treatment.

2) To develop models based on presurgical sociodemographic, clinical, imaging, and (neuro)psychological variables that predict cognitive functioning one year after surgery.

3) To increase knowledge on fatigue, work status, work limitations, and community integration, and their relationship with cognition (over time) in order to improve care for patients with primary brain tumors.

Onderzoeksopzet

Patients will complete preoperative (i.e., at the day of hospitalization one day before surgery) neuropsychological tests and questionnaires and will be followed up at 3 and 12 months after surgery. Healthy controls will be tested at the same time points.

Onderzoeksproduct en/of interventie

n/a

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Adult patients with supratentorial gliomas and meningiomas undergoing resective surgery in

the St. Elisabeth Hospital, Tilburg. Eligible subjects for the control group (recruited from the general population and matched for age, gender and educational level) should be in good health, with no current or past psychiatric, neurologic, or cognitive disorder, and medication-use that interferes with cognitive function.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Patients and Dutch control subjects will be excluded if 1) they lack of basic proficiency in Dutch, 2) they have an IQ below 85 or low cognitive skills, 3) their Karnovsky Performance Scale is under 60, 4) they are completely unfamiliair with the use of computers, 5) they have an additional (history of) significant neurological or psychiatric disorder, 6) there is a surgery related complication (morbidity or mortality).

Onderzoeksopzet

Opzet

Onderzoeksmodel: Anders
Controle: N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	15-11-2010
Aantal proefpersonen:	200
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	05-06-2015
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL5063
NTR-old	NTR5194
Ander register	ZonMw Projectnumber; protocol ID MEC : 842003007; NL41351.008.12

Resultaten

Samenvatting resultaten
Cognitive improvement in meningioma patients after surgery: Clinical relevance of computerized testing. Meskal, I., Gehring, K., van der Linden, S.D., Rutten, G-J.M. & Sitskoorn, M.M. 2015 In: Journal of Neuro-Oncology, 121(3), 617-625