Prediction of response to kinase inhibitors based on protein phosphorylation profiles in tumor tissue from advanced renal cell cancer patients.

Gepubliceerd: 14-11-2012 Laatst bijgewerkt: 18-08-2022

The rapid development of agents blocking kinases has established the use of molecularly targeted therapy as the preferred treatment approach for patients with metastatic renal cell cancer (RCC). Five kinase inhibitors (sunitinib, everolimus,...

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON26770

Bron
Nationaal Trial Register

Verkorte titel
Phosphoproteomics for prediction of response to treatment in kidney cancer

Aandoening

Phosphoproteomics - phosphoproteomics
Response prediction - therapieselectie
renal cell cancer - nierkanker
kinase inhibitors - kinaseremmers

Ondersteuning

Primaire sponsor: VU Medical Center
Overige ondersteuning: VitrOmics Health Services BV (VHS)

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The phosphoproteomics profile of the tumor biopsy before treatment will be determined and correlated with radiological response and progression-free survival.

Toelichting onderzoek

Achtergrond van het onderzoek

The rapid development of agents blocking kinases has established the use of molecularly targeted therapy as the preferred treatment approach for patients with metastatic renal cell cancer (RCC). Five kinase inhibitors (sunitinib, everolimus, temsirolimus, sorafenib and pazopanib) are now approved for clinical use. Response rates differ among these agents, importantly depending on line of treatment. In first-line treatment sunitinib results in 47% objective response rates, where in second-line after cytokines 34% responds. Thus far, it is unclear which patient with advanced renal cell cancer will respond to targeted therapy. In order to select patients for targeted therapies, several profiling approaches have been explored but to date no adequate and reliable test is available. It is assumed that responses to targeted agents depend on specific receptor and protein signalling activities in tumor tissues. Therefore, we propose that protein phosphorylation profiling with phosphoproteomics may be a potential clinical diagnostic tool to predict for tumor response to targeted therapy.

Doel van het onderzoek

The rapid development of agents blocking kinases has established the use of molecularly targeted therapy as the preferred treatment approach for patients with metastatic renal cell cancer (RCC). Five kinase inhibitors (sunitinib, everolimus, temsirolimus, sorafenib and pazopanib) are now approved for clinical use. Response rates differ among these agents, importantly depending on line of treatment. In first-line treatment sunitinib results in 47% objective response rates, where in second-line after cytokines 34% responds. Thus far, it is unclear which patient with advanced renal cell cancer will respond to targeterd therapy. In order to select patients for targeted therapies, several profiling approaches have been explored but to date no adequate and reliable test is available. It is assumed that responses to targeted agents depend on specific receptor and protein signalling activities in tumor tissues. Therefore, we propose that protein phosphorylation profiling with phosphoprotemics may be a potential clinical diagnostic tool to predict for tumor response to targeted therapy. This approach is expected to increase efficacy, reduce costs an d prevent toxicities from (ineffective) targeted agents.

Onderzoeksopzet

A feasability analysis will be performed when 20 patients are included.

Onderzoeksproduct en/of interventie

In this study, a fresh tumor biopsy from a metastasis or a primary tumor will be taken. In all subjects subsequent standard treatment will be initiated according to current clinical guidelines. In addition to this biopsy, collection of urine and blood is performed upon inclusion and the same procedure is optional on 2 other time points during treatment.

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Patients with advanced (unresectable and/or metastatic) renal cell cancer;

2. Patients who will start treatment with sunitinib, pazopanib, sorafenib, axitinib or everolimus;

3. At least one tumor lesion should be accessible for biopsy. bone metastases are excluded

as possible biopsy site;

4. Age >- 18 years;

5. Patients must have at least one measurable lesion. Lesions must be evaluated by CT-scan or MRI according to Response Evaluation Criteria in Solid Tumors (RECIST);

6. WHO performance status 0 - 2;

7. Able to provide written informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Clinical findings associated with an unacceptably high tumor biopsy risk, according to the judgement of the investigator;

2. Radiotherapy on target lesions during study or within 4 weeks of the start of study drug;

3. Any condition that is unstable or could jeopardize the safety of the subject and their compliance in the study.

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel
Toewijzing:	N.v.t. / één studie arm
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	02-11-2012
Aantal proefpersonen:	225
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	14-11-2012
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	NL3526
NTR-old	NTR3710
Ander register	METC VUmc : 2012/109
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A