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In vivo response monitoring of treatment with the epidermal growth factor receptor (EGFR) monoclonal antibody cetuximab in metastatic colorectal cancer

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Registration date 04/09/2009	**Overall study status** Completed	[_] Statistical analysis plan [_] Results
Last Edited 04/09/2009	**Condition category** Cancer	[_] Individual participant data [_] Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
NCT-2009-11-02-1031

Study information

Scientific Title
In vivo response monitoring of treatment with the epidermal growth factor receptor (EGFR) monoclonal antibody cetuximab in metastatic colorectal cancer: a single centre phase II study

Acronym
REMOTUX

Study objectives
Due to therapeutic advances including several new active agents, the prognosis for patients with metastatic colorectal cancer has improved during the last years from a median survival of about 12 months with fluorouracil alone to almost 24 months with combination therapies. But obviously, the prognosis still remains limited and patients have to undergo several therapeutic regimens with a considerable rate of side effects. To date, there is scarce data concerning early response assessment in metastatic colorectal cancer under treatment with cetuximab. In order to achieve more information about the early changes in both tumour glucose metabolism and tumour vascularisation and to evaluate its prognostic relevance for early clinical response, we aim to strictly monitor the effects of cetuximab on both parameters during a short-term single agent therapy with cetuximab. The achieved information may be helpful to early identify those subgroups of wild-type KRAS patients who respond to treatment with cetuximab. This knowledge would mean a step forward to "tailoring" individual treatment schedules based on the different biological tumour backgrounds.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Not provided at time of registration

Study design
Prospective open-label single-arm single-centre early exploratory prognostic study

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Metastatic colorectal cancer

Interventions
Treatment as well as routine and trial specific examinations will be conducted according to the following register:
Baseline: study registration followed by, for imaging analysis, fluorine-18 fluordeoxyglucose positron emission tomography (18F-FDG PET-CT) scan and contrast-enhanced ultrasound
Day 1: treatment with cetuximab 400 mg/m^2 body surface area (bsa) will be started
Day 8: treatment will be continued with cetuximab 250 mg/m^2 bsa
Day 14 (end of treatment): imaging analysis with 18F-FDG PET-CT and a contrast-enhanced ultrasound examination
Day 56: evaluation of clinical response with a routine CT-scan

Between day 14 and day 56, patients will be treated according to the Folfiri-cetuximab regimen as an active and approved first-line regimen for metastatic colorectal carcinoma.

Intervention Type

Drug

Phase
Phase II

Drug/device/biological/vaccine name(s)
Cetuximab

Primary outcome(s)
To evaluate the prognostic relevance of relative changes in SUV (delta-SUV; as measured in 18F-FDG PET-CT at day 14 versus baseline) for early clinical response (as defined by Response Evaluation Criteria In Solid Tumours [RECIST], measured at day 56) during short-term single agent treatment with the EGFR-mAB cetuximab.

Key secondary outcome(s))
1. To investigate duration of PFS as well as the influence of changes in individual SUV and of early clinical response on PFS
2. To investigate duration of overall survival (OS)
3. The assessment of antivascular/antiangiogenic effects of cetuximab by contrast-enhanced ultrasound

This clinical trial will include an accompanying research component involving collection of biological samples for pseudonymised analyses. These will comprise sequential serum protein marker assessments (e.g., multiplex cytokine immune monitoring) as well as baseline analysis of tumour proteins and tumour genes, (e.g., PTEN expression, mutations in EGFR dependent downstream kinases like PI-3-kinase, BRAF and EGFR gene expression as measured by fluorescence-in-situ hybridisation). Patients may participate in this study even if they choose not to participate in this component.

Completion date
01/09/2014

Eligibility

Key inclusion criteria
1. Histologically confirmed metastatic colorectal cancer
2. KRAS-wildtype status of the tumour
3. No history of therapy with an EGFR targeting agent
4. No history of previous chemotherapy for advanced disease
5. Measurable tumour lesion with a diameter no smaller than 1.0 cm detected by computed tomography (CT), magnetic resonance imaging (MRI) or ultrasound
6. For contrast-enhanced ultrasound: metastases no smaller than 2.0 cm detected by ultrasound
7. Eastern Cooperative Oncology Group (ECOG) performance status 0, 1 or 2 or Karnofsky performance scale minimum 60%
8. Life expectancy greater than 12 weeks
9. Age greater than or equal to 18 years, either sex
10. Adequate haematologic, renal and hepatic function
11. Ability of the patient to understand the character and individual consequences of this clinical trial
12. Written informed consent (must be available before enrolment in the trial)
13. For women and men with childbearing potential adequate double barrier contraception, for

women: negative pregnancy test
14. Patients who are willing and able to comply with scheduled visits, treatment plan, laboratory tests, and other study procedures

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
1. Any contraindications for chemotherapy according to the Folfiri regimen
2. Non-curatively treated malignancy within the last 5 years
3. Uncontrolled or insulin-depending diabetes mellitus
4. Evidence of central nervous system (CNS) metastases
5. Uncontrolled infection
6. Significant cardiac disease (unstable angina pectoris or cardia symptoms according to New York Heart Association [NYHA] classification III or IV)
7. Active serious illness which renders the patient unsuitable for study entrance or multiple blood sampling
8. Pregnancy and lactation
9. History of hypersensitivity to cetuximab or to any drug with similar chemical structure or to any excipient present in the pharmaceutical form of the investigational medicinal product
10. Participation in other clinical trials or observation period of competing trials, respectively
11. No patient will be allowed to enrol in this trial more than once

Date of first enrolment
01/01/2010

Date of final enrolment
01/09/2014

Locations

Countries of recruitment
Germany

Study participating centre
Im Neuenheimer Feld 350
Heidelberg

Germany
69120

Sponsor information

Organisation
University of Heidelberg (Germany)

ROR
https://ror.org/038t36y30

Funder(s)

Funder type
Industry

Funder Name
Merck Pharma GmbH (Germany)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration