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STEM PACE - Stem cell Transplantation for Eradication of Minimal PAncreatic cancer persisting after surgical Excision

Submission date
25/03/2013

Recruitment status
No longer recruiting

Registration date
09/05/2013

Overall study status
Completed

Last Edited
28/05/2020

Condition category
Cancer

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Pancreatic cancer is the third most common cancer related cause of death. Even in the 15% of patients who are eligible for surgical resection, less than 10% of patients surviving after 5 years. Allogeneic hematopoietic stem cell transplantation (allo-HSCT) is an established treatment capable of curing a variety of hematopoietic malignancies, taking advantage of the graft-versus-tumor effect (GVT). It works best when the underlying neoplasm has been turned into a stage of minimal disease by chemotherapy. There have been attempts of applying allo-HSCT to advanced solid tumors including pancreatic cancer with limited success but studies of allo-HSCT in solid tumors in minimal disease situations have never been performed. The aim of this study is to provide evidence for the clinical value of allo-HSCT in pancreatic cancer put into a minimal disease status by effective surgical resection and standard adjuvant chemotherapy. We want to find out if allo-HSCT can change the unfavourable natural course of this disease and whether allo-HSCT is able to provide long-term disease control to an extent otherwise not possible in pancreatic cancer and improve survival of affected patients.

Who can participate?
Patients with histologically proven diagnosis of pancreatic ductal adenocarcinoma having undergone radical resection (R1/R0 local resection) within the last 4-6 months at the University Hospital Heidelberg, who are matching the inclusion criteria.

What does the study involve?
Patients will undergo conditioning for allo-HSCT (fludarabine 30mg/mE2/d d -6 through d -2, cyclophosphamide 60mg/kg/d d-3 and d -2) followed by transplantation of allogeneic unmanipulated peripheral blood stem cells on d 0. Standard GVHD prophylaxis with CSA (target level 150-200; start d -1, taper d +60 onwards in the absence of GVHD) and MMF (2x1g; start d 0, stop d +30 in the absence of acute GVHD) will be instituted.

What are the possible benefits and risks of participating?
Not provided at time of registration

Where is the study run from?
Clinic of General Surgery, Heidelberg (Germany)

When is the study starting and how long is it expected to run for?
From May 2012 to June 2016

Who is funding the study?
Heidelberg Surgery Foundation, University of Heidelberg (Germany)

Who is the main contact?
Klinisches Studienzentrum der Chirurgie (KSC)
ksc@med.uni-heidelberg.de

Contact information

Type(s)
Scientific

Contact name
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69120

Additional identifiers

Clinical Trials Information System (CTIS)
2012-003528-19

Protocol serial number
130311StemPace

Study information

Scientific Title
A phase-I/II study on the value of adjuvant allogeneic hematopoietic stem cell transplantation in pancreatic cancer after surgical resection

Acronym
STEM PACE

Study objectives
The principal question addressed is whether allo-HSCT can change the unfavourable natural course of pancreatic cancer.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved by the independent Medical Ethics Committee of the University of Heidelberg (EC) and the Paul-Ehrlich-Institute (PEI), as competent authority, 22/03/2013

Primary study design
Interventional

Study design
Single-arm single-centre open phase-I/II trial using historical controls

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Pancreatic cancer resected in curative intention (Adjuvant setting)

Interventions
Eligible patients will be screened immediately after successful surgical resection, have a donor search initiated, and subjected to standard adjuvant chemotherapy.

Only those patients who underwent adjuvant chemotherapy without disease progression and who have a matched related stem cell donor available will be registered for the trial. Patients without a matched related donor will not be registered for the trial but may be used a historical control outside of the protocol.

Patients will undergo conditioning for allo-HSCT (fludarabine 30mg/mE2/d d -6 through d -2, cyclophosphamide 60mg/kg/d d-3 and d -2) followed by transplantation of allogeneic unmanipulated peripheral blood stem cells on d 0. Standard graft-versus-host disease (GVHD) prophylaxis with cyclosporine (CSA) (target level 150-200; start d -1, taper d +60 onwards in the absence of GVHD) and mycophenolate mofetil (MMF) (2x1g; start d 0, stop d +30 in the absence of acute GVHD) will be instituted.

Intervention Type
Drug

Phase
Phase I/II

Drug/device/biological/vaccine name(s)
allogeneic hematopoietic stem cell

Primary outcome(s)
2-year progression-free survival (PFS) from registration.

Key secondary outcome(s)
1. 2-year PFS and overall survival (OS) after surgical resection
2. 2-year overall survival (OS) from registration
3. Minimal residual disease kinetics at screening day, registration day, 1, 3, 6, 12, 18 and 24

months according to study protocol (MRD; measured by tumor serum marker levels) and their correlation with immune events
4. Impact of important explanatory variables on PFS and OS.

Secondary feasibility endpoints
1. Non-relapse mortality (NRM) at 3 and 24 months after allo-HSCT
2. Prevalence of chronic graft-versus-host-disease at 6, 12 and 24 months from allo-HSCT
3. Quality of life at day -28, day +28, day +100, day +180, day +360, day +720 before/after allo-HSCT
4. Impact of important explanatory variables on NRM

Completion date
01/06/2016

Eligibility

Key inclusion criteria
1. Histologically proven diagnosis of pancreatic ductal adenocarcinoma having undergone radical resection (R1/R0 local resection) within the last 4-6 months at the University Hospital Heidelberg
2. Hartwig score 1 or 2 (Millenium paper)
3. Measurable tumor serum marker (i.e. CA 19-9) prior to resection
4. Age at registration 18 to 65 years, either sex
5. Karnofsky index > /=70
6. Hematopoietic cell transplantation comorbidity index (HCT-CI) score 0-1 (pancreatic carcinoma does not count against the score)
7. HLA-identical (10/10 intermediate-resolution) related donor
8. Written informed consent, signed and dated

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
Not Specified

Total final enrolment
0

Key exclusion criteria
1. Hartwig score ≤ 0 (Millenium paper)
2. HIV, HBV, HCV seropositivity
3. Organ dysfunction

4. Symptomatic coronary artery disease or ejection fraction <35%
5. DLCO ≤60%, FEV1 <65% of predicted FEV1 despite appropriate treatment or receiving supplementary continuous oxygen
6. Liver function abnormalities: Patients with will be excluded if total serum bilirubin >1.5 X ULN, or AST/ALT >2.5XULN
7. Chronic renal dysfunction defined by a creatinine clearance <50 ml/min.
8. Fertile men and women unwilling to use contraceptive techniques during and for 12 months following treatment
9. Females who are pregnant or breastfeeding
10. Active other malignancies and/or a history of another malignancy treated by chemotherapy or radiotherapy within the last five years prior to inclusion
11. Patients with systemic, uncontrolled infections
12. Current alcohol or drug abuse
13. Inability to understand the scope of the study and intent of treatment. Dementia or altered mental status that would prohibit understanding informed consent
14. Participation in another interventional clinical trial according to the Arzneimittelgesetz within 30 days prior to inclusion

Date of first enrolment
01/05/2013

Date of final enrolment
01/06/2016

Locations

Countries of recruitment
Germany

Study participating centre
University of Heidelberg
Heidelberg
Germany
69120

Sponsor information

Organisation
Ruprecht-Karls-University Heidelberg (Germany)

ROR
https://ror.org/038t36y30

Funder(s)

Funder type
University/education

Funder Name
Heidelberg Surgery Foundation, University of Heidelberg (Germany)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	protocol	10/03/2014		Yes	No
Basic results			28/05/2020	No	No