Infusion of mesenchymal stem cells as treatment for steroid resistant grade II to IV acute GVHD or poor graft function: a multicenter phase II study

Published: 02-09-2008
Last updated: 07-05-2024

This is a mulricenter phase II study examining the feasability and efficacy of this approach. Subjects will receive by intraveneus infusion a dose of MSC (aiming for 2 x 106/kg or highest avialable dose)

Ethical review	Not approved
Status	Will not start
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON31471

Source
ToetsingOnline

Brief title
Mesenchymale stem cells versus acute GVHD

Condition

- Other condition
- Leukaemias
- Haematopoietic neoplasms (excl leukaemias and lymphomas)

Synonym
acute GvHD, rejection

Health condition

mesenchymale stamcellen bij acute GvHD of onvoldoende functionerende greffe

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Ziekenhuis Maastricht
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: acute GvHD, mesenchymale stemcells

Outcome measures

Primary outcome

Primary endpoint:

To establish efficacy of infusions of MSC from related HLA-identical,

HLA-haploidentical or mismatched unrelated donors:

1. Part 1: MSC for steroid-refractory grade II-IV acute GVHD : efficacy on

steroid-resistant grade II - IV acute GVHD.

2. Part 2: MSC for poor graft function (PGF) : efficacy on PGF.

3. Part 3: MSC + DLI for poor donor T-cell chimerism after allogeneic HCT :

efficacy on prevention of graft rejection in patients with low or

failing donor T-cell chimerism after allogeneic HCT.

Secondary outcome

Secondary endpoints:

1. Toxicity of MSC infusions

2. Incidence of acute (Appendix A) and chronic GVHD (Appendix B).

3. Overall and progression-free survival.

4. Incidence of bacterial, fungal and viral infections.

5. Disease progression or relapse.

6. Evidence of epithelial cells of MSC donor origin (assessed by STR-PCR) in

bone marrow (and organs affected by GVHD : for part 1 only) after MSC infusion.

Study description

Background summary

Allogenic hematopoietic cell transplantation (HCT) has become an important treatment modality for various hematological malignancies. However, allogenic HCT is complicated by graft-versus-host disease (GVHD), poor graft function (PGF) and low donor T-cell chimerisme (<50%) and failing donor T-cell chimerisme (>20% decrease donor T-cell chimerisme with the second value < 50%) is associated with high risk of graft rejection. For these complications the established treatment options fail frequently and new modalities are urgently needed.

Study objective

This is a mulricenter phase II study examining the feasability and efficacy of this approach. Subjects will receive by intraveneus infusion a dose of MSC (aiming for 2 x 106/kg or highest avialable dose)

Study design

This is a multicenter phase II study. Subjects will receive by intraveneus infusion a dose of MSC

Intervention

not applicable

Study burden and risks

not applicable

Contacts

Public
Academisch Ziekenhuis Maastricht

P. Debeyelaan 25
6229 HX Maastricht
Nederland
Scientific
Academisch Ziekenhuis Maastricht

P. Debeyelaan 25
6229 HX Maastricht
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Patient eligibility criteria
-male or female of any age
-previous allogenic transplantation (related or unrelated donor, any degree of HLA matching) or autologous transplantation (for oart two only) or HSC at any time before.
- any source of HSC (marrow, PBSC, cord blood) and any conditioning regimen
- informed consent given by donor or his/her guardian if of minor age;MSC donor inclusion criteria
1. related to the recipent (sibling, parent or child) or unrelated
2. male or female
3. age> 16 yrs (no age limit if same as HSC donor)
4. no HLA matching required
5. fulfills generally accepted criteria for allogeneic HSC donation
6. informed consent given by donor or his/her guardian if of minor age;Additional criteria for each part of the protocol:
part 1: MSC for steroid-refractory grade II-IV acute GvHD
1. allogeneic transplantation
- grade II-IV acute GvHD refractory to mPDN 2 mg/kg/day or equivalent
2. ongoing therapy with ciclosporine or tacrolimus at therapeutic doses

3. patient may have received previously any other form of treatment for acute GvHD, but no new treatment started within 1 month of study entry;part 2: MSC for poor graft function (PGF)
1. allogeneic or autologous transplantation
- cytopenia in 2 or 3 lineages OR severe cytopenia in 1 lineage
2. cytopenia duration 2 weeks beyond day 28 after autologous HCT, or day 42 (day 60 for cord blood transplantation) after allogeneic HCT
3. cytopenia is not related to CMV or other infection, myelosuppressive/toxic drugs, renal failure, peripheral cell destruction or other identifiable cause
4. in case of HLA-identical related donor and full donor chimerism, patient can only be included if a boost of donor CD34+ cells has been unsuccessful or is not feasible;part 3: MSC + DLI for poor donor T-cell chimerism
1. allogeneic transplantation
2. donor T-cell chimerism < 50% for at least 2 consecutive weeks beyond day 21 after HCT OR 20% decrease in donor T-cell chimerism with the second value < 50%

Exclusion criteria

Patient
- HIV postive
- active uncontrolled infection at time of scheduled MSC infusion
- relapsing or progressing malignancy;MSC donor exclusion criteria
1. HIV positive
2. known allergy to lidocaine
3. if donor other than HSC donor: any risk factor for transmissible infectious diseases

Study design

Design

Study phase:	2
Study type:	Interventional
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Will not start
Enrollment:	10

Type:	Anticipated

Medical products/devices used

Product type:	Medicine
Generic name:	Somatic cels allogenic

Ethics review

Not approved

Date:	01-09-2008
Application type:	First submission
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)

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
EudraCT	EUCTR2007-004310-14-NL
CCMO	NL20935.000.08