A phase II study to assess engraftment and engraftment kinetics after double cord blood transplantation with a reduced-intensity conditioning regimen in patients eligible for allogeneic stem cell transplantation lacking a matched unrelated donor.

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON26715

Source
Nationaal Trial Register

Brief title
Engraftment after double cord blood transplantation.

Health condition

Patients with high-risk hematological malignancies (acute myeloid leukemia, acute lymphoblastic leukemia or myelodysplastic syndrome with high-risk characteristics; chronic myeloid leukemia in second chronic phase; (very) severe aplastic anemia relapsing after or failing immunosuppressive therapy; Non-Hodgkin lymphoma or chronic lymphocytic leukemia, responsive at (at least) third line chemotherapy) meeting the criteria for allogeneic matched unrelated donor transplantation but lacking a sufficiently matched volunteer donor

Sponsors and support

Primary sponsor: Erasmus Medical Centre Rotterdam
Department of Hematology
Source(s) of monetary or material Support: Erasmus Mediacl Centre Rotterdam
other participating centres
Sanquin blood bank Southwest Region

Intervention

Outcome measures

Primary outcome

The cumulative incidence of graft failure.

Secondary outcome

1. Time to engraftment of different cell subset';

2. time to platelet transfusion independence;

3. time to red blood cell transfusion independence;

4. incidence and grade of acute GVHD;

5. incidence of chronic GVHD;

6. incidence of infections;

7. transplant related mortality (TRM);

8. progression free survival and overall survival.

Study description

Background summary

Background:

Many adult patients with a high risk hematological disease can not proceed to allogeneic stem cell transplantation because they lack a matched unrelated stem cell donor. Cord blood is an important alternative stem cell source in children. In adult patients single cord blood

transplantation is associated with a high rate of graft failure and a delayed hematopoietic recovery due to the small number of hematopoietic stem cells in a single cord blood unit. It has been shown that double cord blood transplantation is a safe and promising approach to overcome this problem. Sustained hematopoiesis is usually derived from a single donor after double umbilical cord blood transplantation. So far, the distinct contributing factors which lead to the predominance of the prevailing cord blood graft are not known.

Objective:

Evaluation of engraftment and disease-free survival following double cord blood transplantation after a reduced intensity conditioning regimen in adult patients. In addition to description of clinical parameters biological studies will be performed in order to evaluate whether parameters can be identified that predict which graft ultimately prevails.

Study design:

Prospective phase II study.

Study population:

Patients with high risk haematological disease qualifiying for allogeneic stem cell transplantation but lacking a matched unrelated donor.

End points:

The primary endpoint is the cumulative incidence of graft failure.

The secundary end points are: time to engraftment of different cell lines, incidence of graft vs host disease, incidence of infection, TRM, disease-free survival and overall survival.

Study objective

N/A

Study design

Evaluation of engraftment will take place at 1, 2, 3, 6, 12, and 24 months after transplantation.

Intervention

Patients eligible for allogeneic stem cell transplantation lacking a matched unrelated donor are transplanted with a double cord blood graft. Transplantation will be preceded by a reduced-intensity conditioning regimen, consisting of cyclophosphamide 60 mg/kg, fludarabine 4x40 mg/kg and TBI 2x2 Gy. Prophylaxis for graft-versus-host disease consists of cyclosporine-A and mycophenolate mofetil.

After transplantation blood and bone marrow samples will be drawn to study the mechanism of engraftment.

Contacts

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Eligibility criteria

Inclusion criteria

1. Age 18-65 years inclusive.

2. Meeting the criteria for a MUD allo SCT and high risk disease.

3. Lacking a sufficiently matched volunteer unrelated donor or lacking such a donor within the required time period of =< 2 months in case of urgently needed allo SCT.

4. Availability of 2 sufficiently matched UCB grafts with a total nucleated cell count of at least 4x10.7/kg.

5. WHO performance status =< 2.

6. Written informed consent.

Exclusion criteria

1. Relapse APL.

2. Primary myelofibrosis.

3. Bilirubin and/or transaminases > 2.5 x normal value.

4. Creatinine clearance < 40 ml/min.

5. Cardiac dysfunction as defined by:

- reduced left ventricular function with an ejection fraction < 45% as measured by MUGA scan or echocardiogram

- unstable angina or unstable cardiac arrhythmias.

6. Pulmonary function test with VC, FEV1 and/ or DCO < 50%.

7. Active, uncontrolled infection.

8. History of high dose total body irradiation.

9. HIV positivity.

Study design

Design

Study type:	Interventional
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Open (masking not used)

Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	26-11-2008
Enrollment:	40
Type:	Anticipated

Ethics review

Positive opinion

Date:	03-12-2008
Application type:	First submission

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
NTR-new	NL1503
NTR-old	NTR1573
Other	: CCMO NL 18416.000.08
ISRCTN	ISRCTN wordt niet meer aangevraagd

Study results

Summary results
N/A