Efficacy and safety of enzyme replacement therapy for MPS I with 100 I.U./Kg recombinant human a-L-iduronidase (ALDURAZYME™).

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON21663

Source
NTR

Brief title
N/A

Health condition

Mucopolysaccharidose type I.

Sponsors and support

Primary sponsor: CVZ
Source(s) of monetary or material Support: N/A

Intervention

Outcome measures

Primary outcome

1. Improvement of joint mobility;

2. Improvement of quality of life.

Secondary outcome

1. Improvement of sleep apnea registration;

2. Improvement in 6-minute walk test;

3. Improvement of cardiac geometry and function;

4. Improvement in lung function;

5. Improved motor performance (handicap status);

6. Evaluation of visual acuity / performance;

7. Evaluation of mental condition and social performance;

8. Decrease of liver and/or spleen size as measured by ultrasound;

9. Effect of dose and infusion rate on plasma enzyme levels and enzyme availability.

Study description

Background summary

Mucopolysaccharidose type I (MPS I) is caused by the deficiency of the lysosomal enzyme a-L-Iduronidase.

Due to this deficiency heparan sulphate and dermatan sulphate (glycosaminoglycans, GAGs) accumulate in the lysosomes of all cells, but predominantly in the connective tissue. Clinical features encompass a spectrum of disease manifestations.

Three phenotypes are recognized;

1. the neuronopathic (Hurler) type at one end of the spectrum;

2. an intermediate (Hurler-Scheie) phenotype;

3. and a non-neuronopathic (Scheie) phenotype at the far end of the spectrum.

In both the non-neuronopathic and neuronopathic forms, visceral complications occur, such as joint abnormalities, hepatomegaly, cardiac valve abnormalities, skeletal abnormalities and corneal clouding.

The most severe expression of the disease is found in the neuronopathic form; here visceral symptoms occur very early in life, with concomitant devastating, irreversible central nervous system involvement, giving rise to considerable morbidity from a very early age onwards and death on average around the 5th year of age.

In the Scheie phenotype psychomotor development is normal. Skeletal and joint manifestations form the important disease burden in these patients.

Recently, trials with weekly a-L-Iduronidase (Aldurazyme™, Genzyme/Biomarin) infusions showed improvement in joint mobility, lung function and exercise tolerance, as determined by the 6 minute walk test. Aldurazyme™ received marketing approval as an orphan drug from the EMEA in April 2003.

However, there are still many open issues regarding the efficacy of treatment, making uniform evaluation of treatment in selected groups of MPS I patients mandatory.

Study objective

MPS I patients can be treated with Aldurazyme safely and effectively.

Study design

N/A

Intervention

Enzyme replacement therapy with Aldurazyme.

Contacts

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Eligibility criteria

Inclusion criteria

1. The patient must give written informed consent;

2. If the patients is younger than 12 years, informed consent from his/her parents or his/her legal representative is necessary;

3. If the patient is below 18 years, but older than 12 years, informed consent from the child is necessary if the patient is mentally and physically able to do so;

4. The patients can be included in this protocol, and not in any of the two other MPS I treatment protocols;

5. The patient must have a current diagnosis of MPS I, as documented by a decreased á-L-Iduronidase activity in leukocytes or fibroblasts;

6. Patients must be willing and able to comply with the study protocol;

7. Female patients must have a negative pregnancy test, and must use a medically accepted method of contraception during the study.

Exclusion criteria

1. Patient is unable or unwilling to comply with the study protocol;

2. Parent(s) or legal representatives are unable or unwilling to comply with the evaluation program;

3. Patient is pregnant or lactating;

4. Life expectancy < 6 months;

5. Very severe neurological involvement as evidenced by:

a. Total or subtotal absence of cortical activity (vegetative state);

b. Untreatable seizures;

c. Loss of (almost) all abilities to communicate.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-01-2004
Enrollment:	35
Type:	Actual

Ethics review

Positive opinion

Date:	12-09-2005
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	NL331
NTR-old	NTR369
Other	: N/A
ISRCTN	ISRCTN22324060

Study results

Summary results
N/A