

Allogeneic fibroblast cell therapy for dystrophic epidermolysis bullosa

Submission date 09/08/2011	Recruitment status No longer recruiting	☐ Prospectively registered
		☐ Protocol
Registration date 29/09/2011	Overall study status Completed	☐ Statistical analysis plan
		☒ Results
Last Edited 24/08/2016	Condition category Skin and Connective Tissue Diseases	☐ Individual participant data

Plain English summary of protocol

Background and study aims

This research study concerns individuals with the inherited blistering skin disease known as dystrophic epidermolysis bullosa (DEB). This is a very severe condition in which skin injury leads to blisters and chronic wounds that remain inflamed and take longer to heal and sometimes never heal. The entire skin and internal organs can be affected. The increased skin fragility leads to scarring and an increased risk of skin cancer at a young age. Currently we have no effective treatments for DEB and we are unable to prevent the disease complications. Our aim is to show that skin cells called fibroblasts can improve wound healing in people with DEB. We know that these cells make collagen VII, the protein that is genetically abnormal in these people. We have shown in previous studies that skin fibroblasts from other healthy people are able to compensate for this and stimulate production of some of the collagen VII that is missing in your skin.

Who can participate?

Patients aged 16-70 diagnosed with dominant or recessive DEB.

What does the study involve?

If you take part, first of all, you will have several of your skin wounds assessed and photographed. You will have a physical examination of your skin and you will be asked to donate a small blood sample. The sample will be taken in the same way as any standard blood test. A urine test to exclude pregnancy will be needed for women. On your next visit, if your wounds are not showing signs of spontaneous healing, you will be invited to participate in the next part of the trial which involves injections into your skin. We would like to inject two preparations into your skin. One will be a solution containing the fibroblast cells, the other will be the solution but without the fibroblast cells. The solution lacking the fibroblasts is called a placebo. We feel it is important to compare the effects of fibroblasts and placebo on wound healing in your skin so that we can learn more about how your skin heals.

Up to 10 skin wounds may be treated and we plan to do this on one visit to the hospital. This may require up to 60 injections in your skin. This may sound like a lot of injections but they should not cause you much discomfort. Each injection may cause brief stinging for a few seconds, similar to having a blood test. The size of the needle used for injecting the fibroblast cells or placebo solution is in fact slightly thinner than most blood test needles. If you find the

injection process at all uncomfortable, we can interrupt the injections and numb the skin with a topical anaesthetic cream. After the injections you will be able to go home immediately. The choice of either fibroblasts or placebo will be selected in a random manner. On average, half the wounds will be treated with cells and half with placebo, but you will not be told how each individual wound has been treated. This step will then allow us to follow up the healing process in a blinded manner. Only at the end of the trial you will learn how each wound was treated. After the initial injection day, you will be asked to attend for six further clinic visits over the subsequent six months. On these visits, the wounds selected during your first visit will be photographed and their size measured. We will ask you to keep a wound diary and take weekly photos of the selected wounds with cameras provided by us. Training and technical support will also be provided. The measurements will be done with a computer software programme and this will be a painless procedure. We will also take a skin swab from the wounds to test for any infection; this is also a painless procedure. On two of these visits you will be asked to give two further small blood samples. We are also keen to assess the impact of the cell injections on your skin and we will ask you to complete a questionnaire about this.

What are the possible benefits and risks of participating?

It is likely that participation in this research project will not be of immediate clinical benefit to you. However, the results should be able to tell us whether skin fibroblasts have the potential to speed up wound healing and improve skin function as well as the quality of your life by reducing the wound pain. At the same time by following non-treated wounds with serial photographs we will be able to assess and document their healing process. The final results of the clinical trial will be discussed with you in detail by a member of the research team.

The injection of fibroblasts or inactive solution into the skin could cause pain for a few seconds. We plan to minimise the pain by anaesthetising the skin using a topical anaesthetic cream if you find the pain of the injections too uncomfortable. Several studies have shown that injected skin fibroblasts are well tolerated but there is the potential to cause minor redness and irritation that should resolve spontaneously over a few days. Venous sampling for blood tests could result in pain, bruising and/or infection at the injection site. Infection can be treated with a short course of oral antibiotics.

Where is the study run from?

It is being organized by Guys and St Thomas NHS Trust in London (UK).

When is the study starting and how long is it expected to run for?

The study began in January 2011 is open to participants until November 2011.

Who is funding the study?

The study is being funded by the Dystrophic Epidermolysis Bullosa Research Association (DEBRA) (UK), Technology and Strategy Board (UK) and Intercytex Ltd (UK) - investigational product manufacturer and supplier.

Who is the main contact?

Dr Gabriela Petrof
gabriela.petrof@kcl.ac.uk

Contact information

Type(s)

Scientific

Contact name

Prof John McGrath

Contact details

St John's Institute of Dermatology
King's College London
9th Floor, Tower Wing
Guy's Hospital
London
United Kingdom
SE1 9RT

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john.mcgrath@kcl.ac.uk

Additional identifiers**Protocol serial number**

ICX-DEBRHY-2

Study information**Scientific Title**

A prospective placebo controlled phase II study to evaluate ICX-RHY-013 for the treatment of skin erosions in dystrophic epidermolysis bullosa patients

Study objectives

To evaluate the efficacy of ICX-RHY-013 compared with placebo when injected intradermally around open skin erosions of patients with dystrophic epidermolysis bullosa.

Ethics approval required

Old ethics approval format

Ethics approval(s)

South East London Research Ethics Committee 3, 17 January 2011, ref: 10/H0808/146

Primary study design

Interventional

Study design

Single centre randomised placebo controlled phase II study

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Dystrophic epidermolysis bullosa (DEB)

Interventions

Up to ten selected lesions per subject will be randomised to receive ICX-RHY-013 or placebo. Randomisation will be performed within each subject, using a computer generated

randomisation scheme. A single sealed envelope for each subject will show the treatment to be allocated to each of the (up to 10) numbered lesions for that subject.

1. Each subject will undergo an initial health screen and baseline assessment of DEB erosions.
2. Subjects will undergo a single treatment with a series of injections around the margin of the erosions selected for the study.
3. Subjects will be evaluated for erosion healing (area measurements), erosion pain and erosion recurrence throughout the 26-week study period.
4. Subjects to be evaluated for study treatment safety and tolerability for 26 weeks.

Intervention Type

Drug

Phase

Phase II

Drug/device/biological/vaccine name(s)

ICX-RHY-013

Primary outcome(s)

To compare the time to wound closure of skin erosions treated with ICX-RHY-013 with those treated with placebo.

Key secondary outcome(s)

1. Wound area over treated areas using standard methodology (wound surface area measurements)
 - 1.1. Wound surface area measurements at every study visit using photography and digital planimetry software will be used to measure change in wound surface area.
2. Erosion pain - study subjects will undertake pain and quality of life assessments by completing a quality of life questionnaire.
3. Wound recurrence
4. Adverse events for 12 weeks
5. Clinical laboratory safety assessment at 4 and 12 weeks
6. Clinical assessment of change in the treated area (photographic evidence)

Completion date

30/11/2011

Eligibility

Key inclusion criteria

1. Subjects who have a clinical diagnosis of dystrophic epidermolysis bullosa, either autosomal recessive or autosomal dominant
2. Subjects who are ≥ 16 and ≤ 70 years of age
3. Subjects with at least 5 open skin erosions which are located on the limbs or the trunk, each with a surface area between 5cm sq and 50cm sq. The size of these erosions must not exceed 50cm² at baseline
4. Subjects who have voluntarily signed and dated an Informed Consent Form (ICF) prior to the first study intervention

5. Subjects, who are, in the opinion of the Investigator, able to understand the study, co-operate with the study procedures and are willing to return to the clinic for all the required follow-up visits

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Subjects who have received immunotherapy or chemotherapy within 60 days of enrolment into this study
2. Subjects with a known allergy to any of the constituents of the product
3. Subjects with known or suspected malignancy
4. Subjects with intolerance or allergy to additional study-associated drugs / therapies (e.g. anaesthetic etc)
5. Subjects who have taken systemic antibiotics within 7 days
6. Subjects taking immunosuppressive therapy including systemic steroids (i.e., oral prednisolone > 40mg for more than 1 week, intranasal / inhaled steroids are acceptable) within the 30 days of the first treatment or planning immunosuppressive therapy at any time during the study
7. Subjects who have taken any other investigational product within 90 days prior to screening or planned use of any other investigational product during the study period
8. Subjects who are pregnant, planning pregnancy and women of child-bearing potential who are not abstinent or practicing an acceptable means of contraception, as determined by the Investigator, for the duration of the treatment phase
9. Subjects with abnormal laboratory findings considered clinically significant
10. Subjects with a known history of poor adherence/compliance with medical treatment or follow up
11. Subjects who are unable to understand the aims, objectives and follow-up treatment
12. Subjects with known alcohol or narcotic drug dependence
13. Subjects who have previously been screened on more than two occasions, or who have previously been treated under this protocol
14. Subjects who have previously been treated with ICX-RHY-013 and who have an immune response for collagen VII antibody detected by immunofluorescence

Date of first enrolment

31/01/2011

Date of final enrolment

30/11/2011

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

St John's Institute of Dermatology

London

United Kingdom

SE1 9RT

Sponsor information

Organisation

Intercytex Ltd (UK)

ROR

<https://ror.org/04svmrs70>

Funder(s)

Funder type

Research organisation

Funder Name

Dystrophic Epidermolysis Bullosa Research Association (DEBRA) (UK)

Funder Name

Technology and Strategy Board (UK)

Funder Name

Intercytex Ltd (UK) - Investigational product manufacturer and supplier

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?
Results article	results:	01/11/2013		Yes	No
HRA research summary			28/06/2023	No	No