

A study to assess the safety and the effects of using a growth factor, keratinocyte growth factor (KGF), in patients with moderate asthma

Submission date 16/06/2009	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 07/10/2009	Overall study status Completed	☐ Statistical analysis plan ☐ Results
Last Edited 24/05/2016	Condition category Respiratory	☐ Individual participant data ☐ Record updated in last year

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

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Additional identifiers

Protocol serial number

BRU 3.1, Sponsor no. RHM MED 0879

Study information

Scientific Title

Safety and efficacy of parenteral keratinocyte growth factor (KGF) in moderate asthma subjects: a double-blind placebo-controlled randomised parallel group trial

Study objectives

That restoration of the bronchial epithelial barrier in asthma by treatment with KGF will reduce the responsiveness of the lungs to bronchoconstrictor agents, reduce airway inflammation and improve clinical disease expression.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Pending as of 17/06/2009 from the Southampton and South West Hampshire Local Research Ethics Committee (LREC)

Primary study design

Interventional

Study design

Randomised double blind placebo controlled parallel group trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Asthma

Interventions

The study population will be screened including medical history, examination, spirometry, diary card monitoring, exhaled nitric oxide measurement, skinprick testing, mannitol and metacholine provocation tests and baseline bronchoscopy. The intervention group will receive intravenous keratinocyte growth factor (KGF) in a 'collapsed dose' regime, at a dose of 180 µg/kg, given as an infusion on days 0 and day 11 of the trial. The control group will receive saline infusions. In between the doses and following the second doses the subjects will have further provocation tests and a further bronchoscopy. Subjects will be followed up for 36 days following the initial dose of the study drug/placebo.

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Keratinocyte growth factor

Primary outcome(s)

Change in provocative concentration in mannitol causing a 20% fall in FEV1 (PC20), measured in screening and on days 3, 14, 18 and 36

Key secondary outcome(s)

1. Asthma symptoms, assessed continuously during the trial
2. Short acting B-2-agonist usage, assessed continuously during the trial
3. Lung function (home peak expiratory flow rate [PEFR] recording and clinic FEV1 and forced vital capacity [FVC])
4. Change in PC20 methacholine, assessed in screening and on day 17 and 35
5. Change in exhaled NO (eNO), assessed in screening and on days 3, 14, 18 and 36
6. Expression of ZO-1 and occludin in the bronchial epithelium
7. Bronchial biopsy epithelial integrity
8. Mucosal cellular inflammation (eosinophils, mast cells, neutrophils T-cells), assessed from bronchocopy in screening and on day 21
9. Epithelial activation markers (interleukin-8 [IL-8], regulated upon activation, normal T cell expressed and secreted [RANTES], macrophage inflammatory protein-1alpha [MIP-1a], macrophage chemotactic protein-1 [MCP-1], transforming growth factor alpha [TGF-a], epidermal growth factor receptor [EGFR]), assessed from bronchocopy in screening and on day 21
10. Safety readouts (clinical adverse event reporting), assessed continuously
11. Safety-related histochemistry readouts (epithelial Ki 61), assessed continuously

Completion date

01/11/2009

Eligibility**Key inclusion criteria**

1. Aged 18 - 50 years, either gender
2. Confirmed diagnosis of asthma for greater than 1 year as defined by British Thoracic Society (BTS) guidelines, requiring treatment with high dose inhaled corticosteroids in combination with long acting beta-2-agonists, with persisting symptoms requiring use of short-acting beta agonist therapy greater than 3 x/week
3. Lifelong non-smoker
4. Forced expiratory volume in one second (FEV1) greater than 40%
5. Subject must understand the procedures of the study and agree to participation in the study by providing written informed consent
6. Subject considered fit enough to undergo lung function testing including provocation tests, and bronchoscopy
7. Subject must not be participating in another clinical trial or have done so within the last 12 weeks

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 Years

Upper age limit

50 Years

Sex

All

Key exclusion criteria

1. Pregnancy (where pregnancy is defined as the state of a female after conception and until the termination of gestation, confirmed by a positive human chorionic gonadotrophin [hCG] laboratory test greater than 5 mIU/ml), an intention to become pregnant or breast-feeding (lactating)
2. Subjects with active lung disease other than asthma
3. Significant medical (cardiopulmonary, neurological, renal, endocrine, gastrointestinal, psychiatric, hepatic or haematological) co-morbidity which in the view of the investigator could impact on the interpretation of results or participation in the trial, or which is uncontrolled with standard treatment
4. Current participation in another clinical trial or previous participation within the last 12 weeks
5. Alcohol or active drug abuse
6. Ongoing allergen desensitisation therapy
7. Regular use of sedatives, hypnotics, tranquilisers
8. Cancer or previous history of cancer
9. Inability to understand directions for dosing and study assessment
10. Inability to be contacted in case of emergency

Date of first enrolment

01/08/2009

Date of final enrolment

01/11/2009

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

IIR (RCMB) MP810

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Sponsor information**Organisation**

Southampton University Hospitals NHS Trust (UK)

ROR

<https://ror.org/0485axj58>

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Southampton General Hospital (UK) - Internal funding by Biomedical Research Unit

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration