# A comparison between the Insulin Tolerance Test (ITT) and the combined growth Hormone Releasing Hormone and Arginine test to determine Growth Hormone (GH) status in cranially irradiated patients.

Submission date	Recruitment status	<ul><li>Prospectively registered</li></ul>
30/09/2005	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
30/09/2005	Completed	[X] Results
Last Edited	Condition category	[] Individual participant data
27/08/2008	Nutritional, Metabolic, Endocrine	

# Plain English summary of protocol

Not provided at time of registration

# Contact information

# Type(s)

Scientific

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# Additional identifiers

EudraCT/CTIS number

#### **IRAS** number

#### ClinicalTrials.gov number

# Secondary identifying numbers

N0063072321

# Study information

#### Scientific Title

#### Study objectives

We aim to study the pattern of growth hormone response to a combination of GHRH (growth hormone releasing hormone) plus Arginine in adults with radiation induced growth hormone deficiency, to find out whether this stimulation test can successfully replace the Insulin Tolerance Test (ITT) for the diagnosis of radiation-induced growth hormone.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Not provided at time of registration

#### Study design

Randomised controlled trial

# Primary study design

Interventional

# Secondary study design

Randomised controlled trial

# Study setting(s)

Hospital

# Study type(s)

Treatment

## Participant information sheet

# Health condition(s) or problem(s) studied

Nutritional, Metabolic, Endocrine: Growth hormone deficiency

#### Interventions

Patients will be reviewed in Endocrine Clinic. Those who fulfil the inclusion criteria will be invited to participate. An information sheet will provide full details of the study and what is involved. It is established practice that patients sign an informed consent before undergoing GH tests. Patients will undergo the ITT and GHRH+ARG. Stimulation tests in random order, at least three days apart. After overnight fasting, the patient will be admitted to the endocrine unit at 08:30h.

A cannula will be inserted into a forearm vein and kept patent by normal saline. For the ITT, a bolus of 0.1u/kgregular insulin (actrapid) will be given intravenously and the blood glucose level measured (by glucometer) every 15 min. The patient will not be left unattended until the test is finished and the blood glucose level has returned to normal.

For the GHRH+Arginine test, a bolus of 1ug/kg GHRH24 will be infused over 30 min, from 0 to 30 min. Blood samples will be taken every 15 min from -15 to 120 min. They will be assayed for GH, IGF-I, IGFBP3 and Acid Labile sub-unit (ALS).

#### Intervention Type

Drug

#### Phase

**Not Specified** 

## Drug/device/biological/vaccine name(s)

combination of GHRH (growth hormone releasing hormone) plus Arginine

#### Primary outcome measure

Primary end point: growth hormone response to different provocative tests.

## Secondary outcome measures

Not provided at time of registration

#### Overall study start date

26/05/2000

## Completion date

31/12/2008

# **Eligibility**

#### Key inclusion criteria

Not provided at time of registration

# Participant type(s)

**Patient** 

# Age group

Adult

#### Sex

Not Specified

## Target number of participants

30-40 patients from the Trust will be entered to this study.

# Key exclusion criteria

- 1. Patients with pituitary tumours or previous surgery in the hypothalamic-pituitary field (non radiation-induced damage)
- 2. Patients with active or uncured malignancy

- 3. Patients who are suffering from any condition or disease or taking any medication that might affect the function of the hypothalamic-pituitary axis or interfere with the interpretation of the tests
- 4. Failure to sign an informed consent

# Date of first enrolment 26/05/2000

Date of final enrolment 31/12/2008

# Locations

#### Countries of recruitment

England

**United Kingdom** 

Study participating centre Endocrinology Manchester United Kingdom M20 4BX

# Sponsor information

# Organisation

Department of Health

# Sponsor details

Richmond House 79 Whitehall London United Kingdom SW1A 2NL +44 (0)20 7307 2622 dhmail@doh.gsi.org.uk

# Sponsor type

Government

#### Website

http://www.dh.gov.uk/Home/fs/en

# Funder(s)

## Funder type

Government

#### **Funder Name**

Christie Hospital NHS Trust, Christie Endocrinology Department Research Fund (UK), NHS R&D Support Funding

# **Results and Publications**

# Publication and dissemination plan

Not provided at time of registration

Intention to publish date

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	01/01/2003		Yes	No