

Development of a new foot-to-foot standing bioelectrical impedance analysis device to measure the abdominal visceral fat

Submission date 25/07/2012	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 26/10/2012	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 31/05/2017	Condition category Other	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Bioelectrical impedance analysis (BIA) is a commonly used method for estimating body composition, and in particular body fat. Visceral fat is body fat that is stored within the abdominal cavity around internal organs such as the liver, pancreas and intestines. The aim of this study is to test a newly developed standing -posture BIA system to see whether it can accurately measure abdominal visceral fat.

Who can participate?

Healthy Taiwanese adults with normal physical activity

What does the study involve?

The abdominal visceral fat area measured using BIA is compared with the area measured using an abdominal computerized tomography (CT) scan.

What are the possible benefits and risks of participating?

The risks to participants are exposure to radiation during the CT scan, but this is a safe and legal dose.

Where is the study run from?

Dali Jen-Ai Hospital (China)

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

January 2008 to December 2013

Who is funding the study?

National Science Council of the Republic of China (China)

Who is the main contact?

Dr Kuen-Chang Hsieh

Contact information

Type(s)

Scientific

Contact name

Dr Kuen-Chang Hsieh

Contact details

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402

Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Using computerized tomography to evaluate the foot-to-foot standing bioelectrical impedance analysis device to measure the abdominal visceral fat area

Study objectives

The newly developed standing-posture bioelectrical impedance analysis (BIA) system with four-contact electrodes can measure abdominal visceral fat area with accuracy.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Institutional Review Board (IRB) of Advisory Committee at Jen-Ai Hospital, 11/05/2010, ref: 99-02

Study design

Randomised study

Primary study design

Interventional

Study type(s)

Screening

Health condition(s) or problem(s) studied

Abdominal visceral fat measurement in healthy volunteers

Interventions

1. Abdominal VFA measurements using a standing BIA system
2. Abdominal VFA measurements using abdominal computerized tomography (CT) scanned at the L4-L5 level

Both of these two measurements were performed subsequently at the same condition.

Intervention Type

Device

Phase

Not Applicable

Primary outcome(s)

Abdominal VFA measurements obtained using abdominal computerized tomography (CT) scanned at the L4-L5 level

Key secondary outcome(s)

Abdominal VFA measurements obtained using a standing BIA system

Completion date

31/12/2013

Eligibility

Key inclusion criteria

Healthy subjects with normal physical activity were selected in Taiwan

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. The participants had no major diseases, such as diabetes, cancer, kidney dysfunction, liver diseases or long-term asthma
2. Pregnant women or women who were likely to become pregnant, menstruating women
3. Individuals with electronic implants (electronic devices attached to the body)

Date of first enrolment

01/01/2008

Date of final enrolment

31/12/2013

Locations

Countries of recruitment

Taiwan

Study participating centre

National Chung Hsing University

Taichung 402

Taiwan

402

Sponsor information

Organisation

Charder Electronic Co.Ltd. (Taiwan)

Funder(s)

Funder type

Government

Funder Name

National Science Council of the Republic of China (China) (ref: NSC100-2410-H-028-001-MY3)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration