Randomized, single dose, parallel group, bioequivalence study, comparing trastuzumab (Synthon BV, the Netherlands) to Herceptin® (Hoffmann-La Roche, Switzerland) infusion in healthy male volunteers following a placebo-controlled dose escalation period

Published: 01-08-2011
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MAIN OBJECTIVESDose escalation study:To establish the safe use of trastuzumab (Synthon BV, the Netherlands) in healthy volunteers at different dose levels up to 6 mg/kg.Bioequivalence study:Demonstrate bioequivalence between trastuzumab (Synthon BV…

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Breast neoplasms malignant and unspecified (incl nipple)
Study type	Interventional

Summary

ID

NL-OMON35365

Source
ToetsingOnline

Brief title
FTMB dose escalation and bioequivalence

Condition

- Breast neoplasms malignant and unspecified (incl nipple)

Synonym
Breast cancer

Research involving
Human

Sponsors and support

Primary sponsor: Synthon BV
Source(s) of monetary or material Support: Synthon BV

Intervention

Keyword: Bioequivalence, Herceptin, Pharmacokinetics, Trastuzumab

Outcome measures

Primary outcome

PK-profile: concentration - sampling at 0.75, 1.5, 2, 3, 4, 5, 6, 8, 24, 48,

and 96 hours post dose, and 8, 14, 21, 28, 35, 42, 49, and 63 days post dose

(to demonstrate bioequivalence).

Safety and tolerability: general chemistry/haematology and urinalysis, cardiac

markers, echocardiography, ECG, observation and questions, vital signs.

Secondary outcome

PK-profile: concentration - sampling at 0.75, 1.5, 2, 3, 4, 5, 6, 8, 24, 48,

and 96 hours post dose, and 8, 14, 21, 28, 35, 42, 49, and 63 days post dose

(to evaluate pharmacokinetic parameters).

Study description

Background summary

Herceptin has been on the market for over a decade and has established a firm position in the treatment of breast cancer and metastatic gastric cancer. However, Herceptin is the only drug in its class. The purpose of this study is

to evaluate the safety profile and PK-parameters of FTMB, a biosimilar of Herceptin/trastuzumab, expanding choice for prescribers, and ultimately reducing costs.

Study objective

MAIN OBJECTIVES
Dose escalation study:
To establish the safe use of trastuzumab (Synthon BV, the Netherlands) in healthy volunteers at different dose levels up to 6 mg/kg.

Bioequivalence study:
Demonstrate bioequivalence between trastuzumab (Synthon BV, the Netherlands) and Herceptin® (Hoffmann-La Roche, Switzerland) at a
dose level of 6 mg/kg.

SECONDARY OBJECTIVES
To assess the pharmacokinetic profile of trastuzumab.
To evaluate safety of trastuzumab.

Study design

Randomised placebo-controlled double blind dose escalation & parallel laboratory blinded bioequivalence.

Intervention

FTMB, Herceptin or placebo (infusion).

Study burden and risks

Infusion-related reactions can occur, are usually mild, and easily managed. The risk of trastuzumab-induced cardiomyopathy has been assessed as very low, and will be closely monitored.

There is no direct benefit to subjects participating in this study as they are healthy men, however they contribute to the development of a novel drug in its class against breast cancer, a common disease associated with high mortality and morbidity. Subjects will be financially compensated for their participation.

Contacts

Public

Synthon BV

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Scientific
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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Healthy males, 18-45 years of age
Body Mass Index (BMI) 18.5 to 30.0 kg/m2, inclusive;
Subject is available for the entire study period and will provide his written informed consent;
Physical examination without significant deviations;
Vital signs, Electro Cardiogram (ECG) and Echo Cardiogram (Echo) without significant deviations;
All laboratory screening results within the normal range or being assessed as non-significant by the attending physician.
Baseline LVEF > 55%.

Exclusion criteria

History and/or current presence of hypersensitivity or allergic reactions, spontaneous or following a drug administration;
History and/or current presence of cardiac conditions, or any abnormal echo cardiogram

finding (e.g. regional wall motion abnormality or signs of hypertrophic cardiomyopathy);
History and/or current presence of significant gastrointestinal, renal, hepatic, cardiovascular or pulmonary disease;
Clinically significant illness within four weeks before study start;
Any significant clinical abnormality, including a positive test for HBsAg, HCV, or HIV;
Serious mental disease;
Drug, alcohol, solvents or caffeine abuse;
Smoking more than 10 cigarettes (or 2 cigars or 2 pipes) per day;
Regular use of medication for at least three months;
Use of organ-toxic drugs within three months before study start, or use of drugs with a well-defined potential for toxicity to a major organ or system (for example chloramphenicol, which may cause bone marrow suppression);
Any systemic prescription treatment within 14 days before study start;
Any systemic over-the-counter (OTC) drug treatment within 7 days before study start;
Loss of blood outside the limits of Sanquin within 3 months prior to screening;
Participation in another clinical trial within 3 months prior to the start of this study or more than 4 times a year;
Positive test for drugs of abuse at screening;
Any condition that in the opinion of the investigator could jeopardize the subject*s health and/or well-being.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-09-2011
Enrollment:	118
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	FTMB
Generic name:	Trastuzumab
Product type:	Medicine
Brand name:	Herceptin
Generic name:	Trastuzumab
Registration:	Yes - NL intended use

Ethics review

Approved WMO Date:	01-08-2011
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	08-08-2011
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	19-10-2011
Application type:	Amendment
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)

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
EudraCT	EUCTR2011-002972-17-NL
CCMO	NL37452.056.11