FAST * Food Allergy Specific ImmunoTherapy
A multinational phase IIb study to investigate the efficacy and safety of subcutaneous immunotherapy with a modified fish- parvalbumin given in single rising and maintenance doses to subjects allergic to fish

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To evaluate the efficacy and safety of a SCIT-treatment with a mutant recombinant fish-parvalbumin (mCyp c1) quantified in mass units and formulated in a solution with alum, in subjects with fish-allergy.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Allergic conditions
Study type	Interventional

Summary

ID

NL-OMON43811

Source
ToetsingOnline

Brief title
(Food allergy specific immunotherapy) FAST

Condition

- Allergic conditions
- Food intolerance syndromes

Synonym
Food allergy, hypersensitive

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: EU

Intervention

Keyword: Fish, Food allergy, Hypo-allergen, Immunotherapy

Outcome measures

Primary outcome

The primary endpoint of the study will be efficacy as determined by the change from baseline in the threshold of fish protein that induces an allergic reaction. This threshold will be assessed by means of a standardized DBPCFC with cod-fish after completion of six months of immunotherapy. Success is defined as a statistically significant change in the threshold dose of protein that provokes a reaction in DBPCFC.

Secondary outcome

The fundamental secondary endpoint will be safety as indicated by clinical safety and tolerability and by the careful recording of adverse events; other surrogates of efficacy will be: physical examination, vital signs, 12-lead ECG and laberoatory evaluations.

Secondary outcomes of efficacy are the changes from baseline in the severity of the reaction in the DBPCFC, in SPT reactivity against fish and mCyp c 1 (titrated), in serum specific IgE, IgG, IgG4 and IgA antibodies against fish

and rCyp c 1 (ImmunoCAP) and in the biological activity of IgE (stripped

basophil histamine release test).

Study description

Background summary

The only available treatment for food allergy (IgE-mediated food hypersensitivity) is avoidance, in conjunction with rescue medication in case of accidental exposure. Most food allergies are chronic lifelong deseases that are potentially life-threatening. Food allergy is the main cause of emergency hospital ward visits for anaphylaxis.

For patients with food allergy it is difficult to maintain strict avoidance in daily life and to always carry resceu medication. This is a source of stress and it severly impairs quality of life. Therefore there is a need to develop a curative treatment for fish allergy.

That is why there is developped a subcutaneous injection immunotherapy with fish-parvalbumin (mCyp c1) for patients with a fish allergy (SCIT).

Study objective

To evaluate the efficacy and safety of a SCIT-treatment with a mutant recombinant fish-parvalbumin (mCyp c1) quantified in mass units and formulated in a solution with alum, in subjects with fish-allergy.

Study design

This is a multicentre, randomized, double-blind, placebo-controlled clinical trial involving 96 evaluable subjects with fish-allergy. Treatment allocation will be performed using minimazation, which is a method of dynamic or adaptive randomization.
Subjects will be minimized to receive active or placebo treatments in a rate of 2:1, I.E. 64 active and 32 plcebo in total. Since minimazation is a method of adaptive randomization, each new subject will be allocated to receive active or placebo by taking into account the characteristics of the subjects already recruited. Each one of the centers participating in the study will try to include a minimum number of 8-10 subjects. On the other hand, this procedure will allow for the inclusion of more patients per center depending on availablility, until the number of 96 total patients has been reached.

The patients will be treated with a hypoallergenic modified fish-allergen (mCyp

c1) formulated in a solution with alum. The treatment form for the specific immunotherapy will be subcutaneous (SCIT), which is the standard treatment form.

The placebo-treatment will have the same composition as the IMP, however without the hypo-allergen mCyp c1.

Intervention

Patients will receive 10 single rising doses of mCyp c 1 from 6 ng to 60 *g and 5 maintenance doses or placebo. Doses will be administered every week during the build- up phase (first three doses on one day), after which the maintenance dose will be administered once after two weeks and then every month, for four months, during the maintenance phase.

Study burden and risks

Fish-allergic patiënts always need to be aware of what they eat in order to avoid accidental ingestion of fish or products containing fish. We think the expected advantages outweigh the possible disadvantages and burden of the study. Additionally, a number of study procedures are standard procedures for these allergic patients.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Subject having given a written informed consent before completing any study related procedure.
Male or female subject from 18 to 65 years old and in general good health as determined by past medical history and physical examination.
For woman of child bearing potential:
-a negative urine pregnancy test at screening visit,
-the subject must receive/ use a medically effective contraceptive method during the study.
Convincing case history of allergy (immediate allergic reaction * 2 hours) to fish ingestion.
Specific IgE to fish by both a positive (3mm mean wheal diameter over negative control) SPT to cod extract and an ImmunoCAP * class 2 (0.70 kUA/L) for cod (f3) and rCyp c 1 at screening.
Positive DBPCFC with cod at screening visits.
Spirometry FEV1 * 80% of predicted values at screening.
Subject accepting to comply fully with the protocol.

Exclusion criteria

Placebo-reaction in DBPCFC.
Reaction in the last (7th) dose of the DBPCFC.
Food anaphylaxis: anaphylactic shock (a score of 2 or 3 on cardiovascular/ neurologic symptoms according to PRACTALL (1): score 2 = drop in blood pressure and/or >20% from baseline, or significant change in mental status- score 3 = cardiovascular collapse, signs of impaired circulation/ unconscious) due to fish intake, both during the past and at screening DBPCFC.
Ongoing immunotherapy (IT) with any kind of allergen.
Ongoing or previous treatment with omalizumab.
Any clinical condition that contraindicates IT (EAACI guidelines) (8): serious immunological diseases, major cardiovascular disease, cancer, chronic infections, lack of compliance and severe psychological disorders.
Any significant clinical condition that the investigators judged might hamper the patient*s safety or the study outcomes. These diseases include, but are not limited to, cardiovascular disease, malignancy, hepatic disease, renal disease, haematological disease, neurological disease, mental disease, immunological and endocrine disease.
Chronic urticaria.
Severe atopic dermatitis or non-controlled atopic dermatitis.

Ongoing treatment with betablockers, angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor II antagonists (ARA II).
Pregnancy or nursing.
Uncontrolled asthma (asthma, if present, should be well controlled according to GINA guidelines using any kind of drugs except oral corticosteroids and omalizumab).
An FEV1<80% of predicted value during screening spirometry.
Subject who has participated in a clinical trial within 3 months prior to this one.
Subject with a history of drug or alcohol abuse.
Investigators, co-investigators, as well as their children or spouses and all the study collaborators should not be enrolled in the study.
Patients with concurrent allergy symptoms can be included if patients can manage without antihistamines and/or leukotriene receptor antagonists five days prior each screening and treatment visit.

Study design

Design

Study phase:	2
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):	12-02-2016
Enrollment:	10
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	FAST-fish mCyp c 1

Ethics review

Approved WMO Date:	04-08-2015
Application type:	First submission
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	10-11-2015
Application type:	First submission
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)

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	EUCTR2015-000276-10-NL
CCMO	NL52233.000.15