Clinical trial results:
Effect of Intralymphatic Immunotherapy on Basophil Response and Plasma Cell Kinetics in Allergic Patients

Summary

EudraCT number	2012-005227-33
Trial protocol	DK
Global end of trial date	14 August 2016

Results information

Result version number	v1 (current)
This version publication date	22 February 2020
First version publication date	22 February 2020
Summary attachment (see zip file)	CTA_article_SchmidJM (Schmid_JMS_2016_CTA.pdf)

Trial information

Trial identification

Sponsor protocol code	ILIT_2013

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Aarhus Universitets Hospital
Sponsor organisation address	Palle Juul-Jensens Boulevard 99, Aarhus N, Denmark, 8200
Public contact	ILIT, Department of Respiratory Diseases, 0045 78462106,
Scientific contact	PILIT, Department of Respiratory Diseases, +45 78462106,

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	01 March 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	16 August 2015
Global end of trial reached?	Yes
Global end of trial date	14 August 2016
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

We would like to evaluate the effect of Intralymphatic Immunotherpy (ILIT) on patients with rhinoconjunctivitis due to grass pollen allergy.
1. Is the clinical effect comparable to that of Subcutaneous Immunotherapy (SCIT) measured in BasoSCIT (funded by Lundbeck grant R32-A1482)
2. Does a booster injection after one year confer additional symptom relief
3. Can enumerating plasma cells one week after injection monitor ILIT?
4. Is the effect on Basophil activation (BAT EC50) a useful tool to document clinical effect?

Protection of trial subjects:

Minimum numbers of injections performed in participants.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 February 2013
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Denmark: 36
Worldwide total number of subjects	36
EEA total number of subjects	36

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	36
From 65 to 84 years	0

85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Screening and inclusion according to criteria.

Pre-assignment

Screening details:

Screening criteria: Grass pollen allergy.

Period 1

Period 1 title	Overall (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Data analyst

Arms

Are arms mutually exclusive?	Yes
Arm title	4 ILIT

Arm description:

3 intralymphatic injections and 1 booster injection

Arm type	Experimental
Investigational medicinal product name	Alk 225. Phleum Pratense
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection
Routes of administration	Intralymphatic use

Dosage and administration details:

1000 SQU.

Arm title	3 ILIT

Arm description:

3 ILIT injections and one placebo booster injection

Arm type	Experimental
Investigational medicinal product name	Alk 225. Phleum Pratense
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection
Routes of administration	Intralymphatic use

Dosage and administration details:

1000 SQU.

Arm title	Placebo

Arm description:

3 placebo injections and one placebo booster

Arm type	Placebo
Investigational medicinal product name	NaCl
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intralymphatic use

Dosage and administration details:
0.1 ml NaCl as placebo.

Number of subjects in period 1	4 ILIT	3 ILIT	Placebo
Started	12	12	12
Completed	10	11	9
Not completed	2	1	3
Pregnancy	1	1	-
Lost to follow-up	1	-	3

Baseline characteristics

Reporting groups	
Reporting group title	4 ILIT
Reporting group description:	
3 intralymphatic injections and 1 booster injection	
Reporting group title	3 ILIT
Reporting group description:	
3 ILIT injections and one placebo booster injection	
Reporting group title	Placebo
Reporting group description:	
3 placebo injections and one placebo booster	

Reporting group values	4 ILIT	3 ILIT	Placebo
Number of subjects	12	12	12
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	12	12	12
From 65-84 years	0	0	0
85 years and over	0	0	0
Gender categorical Units: Subjects			
Female	8	4	5
Male	4	8	7

Reporting group values	Total		
Number of subjects	36		
Age categorical Units: Subjects			
In utero	0		
Preterm newborn infants (gestational age < 37 wks)	0		
Newborns (0-27 days)	0		
Infants and toddlers (28 days-23 months)	0		
Children (2-11 years)	0		
Adolescents (12-17 years)	0		
Adults (18-64 years)	36		
From 65-84 years	0		
85 years and over	0		

Gender categorical Units: Subjects			
Female	17		
Male	19		

End points

End points reporting groups	
Reporting group title	4 ILIT
Reporting group description:	
3 intralymphatic injections and 1 booster injection	
Reporting group title	3 ILIT
Reporting group description:	
3 ILIT injections and one placebo booster injection	
Reporting group title	Placebo
Reporting group description:	
3 placebo injections and one placebo booster	

Primary: cSMS	
End point title	cSMS
End point description:	
End point type	Primary
End point timeframe:	
3 years follow up	

End point values	4 ILIT	3 ILIT	Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	10	11	9	
Units: cSMS score				
median (inter-quartile range (Q1-Q3))	2.5 (0.5 to 4)	1.5 (0.5 to 3.5)	3.75 (0.5 to 7.25)	

Statistical analyses

Statistical analysis title	Median
Comparison groups	4 ILIT v 3 ILIT v Placebo
Number of subjects included in analysis	30
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.05
Method	ANOVA
Parameter estimate	Median difference (final values)
Confidence interval	
level	95 %
sides	2-sided

Adverse events

Adverse events information	
Timeframe for reporting adverse events: 3 years	
Assessment type	Systematic
Dictionary used	
Dictionary name	Acording to protocol
Dictionary version	1
Reporting groups	
Reporting group title	4 ILIT
Reporting group description: 3 intralymphatic injections and 1 booster injection	
Reporting group title	3 ILIT
Reporting group description: 3 ILIT injections and one placebo booster injection	
Reporting group title	Placebo
Reporting group description: 3 placebo injections and one placebo booster	

Serious adverse events	4 ILIT	3 ILIT	Placebo
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 12 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

Frequency threshold for reporting non-serious adverse events: 0 %

Non-serious adverse events	4 ILIT	3 ILIT	Placebo
Total subjects affected by non-serious adverse events			
subjects affected / exposed	7 / 12 (58.33%)	7 / 12 (58.33%)	1 / 12 (8.33%)
Immune system disorders			
Local reaction	Additional description: Swelling, redness and pain at injection site or unspecific reaction like headache, muscle soreness.		
subjects affected / exposed	7 / 12 (58.33%)	7 / 12 (58.33%)	1 / 12 (8.33%)
occurrences (all)	7	7	1

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported