Clinical trial results:
Novel Imaging of the Eustachian Tube, a CT study using dilute iodixanol in an adult population

Summary

EudraCT number	2014-003614-87
Trial protocol	NO
Global end of trial date	30 June 2017

Results information

Result version number	v1 (current)
This version publication date	03 July 2021
First version publication date	03 July 2021
Summary attachment (see zip file)	Published article (Pasientstudien.pdf)

Trial information

Trial identification

Sponsor protocol code	ET31068

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02282540
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Oslo University Hospital
Sponsor organisation address	Sognsvannsveien 20, Oslo, Norway, 0424
Public contact	Dep. of Radiology and Nuclear Med., Oslo University Hospital, Rikshospitalet, ehopp@ous-hf.no
Scientific contact	Dep. of Radiology and Nuclear Med., Oslo University Hospital, Rikshospitalet, ehopp@ous-hf.no

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	31 December 2017
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	30 June 2017
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To diagnose dysfunction in the eustachian tube by injecting an iodine based contrast medium into the middle ear followed by CT imaging

Protection of trial subjects:

Calm examination environment. thorough information. Local anesthesia. Follow up

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 May 2015
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Norway: 23
Worldwide total number of subjects	23
EEA total number of subjects	23

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)	23
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Adults. OME diagnosis seeking treatment 2015-2017. Living in Southern Norway
Controls: adults, healthy middle ears

Pre-assignment

Screening details:

Adult patients with OME who were subject for balloon dilation of the Eustachian tube. no known allergies towards contrast media
Controls chosen from a mb Meniere group because they were subject for middle ear drainage

Pre-assignment period milestones

Number of subjects started	23
Number of subjects completed	23

Period 1

Period 1 title	pre procedure clinical examination
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	patient group

Arm description:

Patients With OME referred for Balloon dilation. Inclusion.

Arm type	No intervention

No investigational medicinal product assigned in this arm

Arm title	control group

Arm description:

mb meniere patients who were thought to benefit from tympanostomy

Arm type	No intervention

No investigational medicinal product assigned in this arm

Number of subjects in period 1	patient group	control group
Started	18	5
Completed	18	5

Period 2

Period 2 title	Procedure
Is this the baseline period?	Yes[1]
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Patient group

Arm description:

OME patients

Arm type	Experimental
Investigational medicinal product name	Visipaque
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Intratympanic use

Dosage and administration details:

a 20% iodixanol (VisipaqueTM 320 mg/mL) solution diluted with saline (NaCl 9 mg/mL), was slowly injected into the middle ear through the tympanostomy tube using a 22-G suction needle until the middle ear was filled up, but not expanded. The amount given was approximately 0.5 ml.

Arm title	Control group

Arm description:

Mb Meniere, no middle ear disease

Arm type	Active comparator
Investigational medicinal product name	Visipaque
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Intratympanic use

Dosage and administration details:

a 20% iodixanol (VisipaqueTM 320 mg/mL) solution diluted with saline (NaCl 9 mg/mL), was slowly injected into the middle ear through the tympanostomy tube using a 22-G suction needle until the middle ear was filled up, but not expanded. The amount given was approximately 0.5 ml.

Notes:

[1] - Period 1 is not the baseline period. It is expected that period 1 will be the baseline period.

Justification: Period 1 is the inclusion period without intervention. The Product was given only once in period 2 in both arms

Number of subjects in period 2	Patient group	Control group
Started	18	5
Completed	17	5
Not completed	1	0
Protocol deviation	1	-

Period 3	
Period 3 title	Four -six month follow up
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms	
Are arms mutually exclusive?	Yes
Arm title	Patient group
Arm description: follow up of OME patients	
Arm type	No intervention
No investigational medicinal product assigned in this arm	
Arm title	Control group
Arm description: mb Meniere	
Arm type	No intervention
No investigational medicinal product assigned in this arm	

Number of subjects in period 3	Patient group	Control group
Started	17	5
Completed	17	5

Baseline characteristics

Reporting groups

Reporting group title	Procedure

Reporting group description: -

Reporting group values	Procedure	Total	
Number of subjects	23	23	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	23	23	
From 65-84 years	0	0	
85 years and over	0	0	
Age continuous Units: years			
arithmetic mean	50		
full range (min-max)	18 to 64	-	
Gender categorical Units: Subjects			
Female	12	12	
Male	11	11	

End points

End points reporting groups

Reporting group title	patient group
Reporting group description:	
Patients With OME referred for Balloon dilation. Inclusion.	
Reporting group title	control group
Reporting group description:	
mb meniere patients who were thought to benefit from tympanostomy	
Reporting group title	Patient group
Reporting group description:	
OME patients	
Reporting group title	Control group
Reporting group description:	
Mb Meniere, no middle ear disease	
Reporting group title	Patient group
Reporting group description:	
follow up of OME patients	
Reporting group title	Control group
Reporting group description:	
mb Meniere	

Primary: Contrast medium passage

End point title	Contrast medium passage[1]
End point description:	
Visual assessment at CT examination	
End point type	Primary
End point timeframe:	
10 minutes after contrast medium administration	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Study number was too small for statistical analysis in this feasibility study

End point values	Patient group	Control group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	14[2]	5		
Units: individuals				
Cartilaginous Eustachian tube	2	2		
Bony Eustachian tube	8	0		
Epipharynx	4	3		

Notes:

[2] - three did not have passage to the Eustachian tube at all, and one was excluded

Statistical analyses

No statistical analyses for this end point

Secondary: Middle ear inflammation

End point title	Middle ear inflammation

End point description:

Mucous membrane inspection by otoscopy

End point type	Secondary

End point timeframe:

At time of contrast medium administration, four-six months after administration

End point values	Patient group	Control group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	17	5		
Units: individuals				
inflammation	0	0		
no inflammation	17	5		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: 2015-2017	
Adverse event reporting additional description: clinical observation and patient reporting	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	20.1

Reporting groups	
Reporting group title	Patient group
Reporting group description: OME patients subject to contrast medium administration in the middle ear	
Reporting group title	Control group
Reporting group description: Control group subject to contrast medium administration in the middle ear	

Serious adverse events	Patient group	Control group	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 18 (0.00%)	0 / 5 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	

Frequency threshold for reporting non-serious adverse events: 4 %

Non-serious adverse events	Patient group	Control group	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 18 (0.00%)	1 / 5 (20.00%)	
Ear and labyrinth disorders			
Dizziness	Additional description: One of the control patients reported transient dizziness during CM administration. Dizziness was classified as an expected AE in the study protocol. The symptoms resolved before the examination was over for this particular patient and we assumed		
subjects affected / exposed	0 / 18 (0.00%)	1 / 5 (20.00%)	
occurrences (all)	0	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

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

Low number of inclusion in both arms. Audiometry not part of the study

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/32030198