Clinical trial results:
EFFEKTEN AF EZETIMIBE SOM TILLÆG TIL OPTIMAL STATINBEHANDLING PÅ PLAQUE-KOMPOSITIONEN HOS PATIENTER MED AKUT MYOKARDIEINFARKT - VURDERET MED OPTICAL COHERENCE TOMOGRAPHY OG INTRAVASKULÆR ULTRALYD (OCTIVUS)

Summary

EudraCT number	2010-022604-45
Trial protocol	DK
Global end of trial date	20 June 2014

Results information

Result version number	v2 (current)
This version publication date	25 June 2021
First version publication date	05 June 2015
Version creation reason	• Correction of full data set Validation of the reported data has been requested.
Summary attachment (see zip file)	OCTIVUS Thesis (OCTIVUS THESIS.pdf)

Trial information

Trial identification

Sponsor protocol code	46908990

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01385631
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Odense University Hospital
Sponsor organisation address	Sdr. Boulevard 29, Odense C, Denmark, 5000
Public contact	Same as organisation, Dr. Henrik Steen Hansen Odense University Hospital, Department of Cardiology, 45 21955161, Henrik.Steen.Hansen@rsyd.dk
Scientific contact	Same as organisation, Dr. Henrik Steen Hansen Odense University Hospital, Department of Cardiology, 45 21955161, Henrik.Steen.Hansen@rsyd.dk

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	23 March 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	20 June 2014
Global end of trial reached?	Yes
Global end of trial date	20 June 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To determine whether Ezetimibe 10 mg per day in addition to Atorvastin 80 mg per day results in further plaque regression and to assess changes in plaque composition.

Protection of trial subjects:

Patients were followed with clinical evaluation and safety blood samples after 1, 3, and 6 months to assess possible adverse events and compliance.

Background therapy:

Atorvastatin 80 mg per day

Evidence for comparator: -

Actual start date of recruitment	24 June 2011
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	Denmark: 87
Worldwide total number of subjects	87
EEA total number of subjects	87

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)	64
From 65 to 84 years	23

85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Eligible for recruitment were patients with first time ST segment myocardial infarction (STEMI) not previously treated with cholesterol lowering drugs. Patients were required to be >18 and <81 years and able to provide written consent. For further details see the attached thesis (pdf).

Pre-assignment

Screening details:

Main inclusion criteria was first time STEMI, and main exclusion criterias were ongoing lipid lowering therapy, age >80, concommittant disease and use of another drug eluting stent than the one designated by the study protocol (Resolute Integrity, St. Jude Medical).

Pre-assignment period milestones

Number of subjects started	87
Number of subjects completed	87

Period 1

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

Blinding implementation details:

Assignment to treatment arms was randomized by the hospital pharmacy and study medication was derived as blinded capsules. Patient data were achieved with randomized study-ID numbers associated with the patient-ID in a key-file not accessible to the investigator. The analyst was blinded for patient ID and baseline-follow-up sequence during assessment.

Arms

Are arms mutually exclusive?	Yes
Arm title	Intervention arm

Arm description:

Patients assigned to the intervention arm were treated with atorvastatin 80 mg AND ezetimibe 10 mg.

Arm type	Experimental
Investigational medicinal product name	ezetimibe
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, soft
Routes of administration	Oral use

Dosage and administration details:

10 mg per day

Investigational medicinal product name	Aorvastatin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

80 mg per day

Arm title	Placebo

Arm description:	
Patients treated with atorvastin 80 mg AND placebo	
Arm type	Placebo
Investigational medicinal product name	placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, soft
Routes of administration	Oral use
Dosage and administration details:	
N/A	
Investigational medicinal product name	Atorvastatin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use
Dosage and administration details:	
80 mg per day	

Number of subjects in period 1	Intervention arm	Placebo
Started	43	44
Completed	40	42
Not completed	3	2
Adverse event, serious fatal	1	-
Consent withdrawn by subject	1	-
Lost to follow-up	-	2
Diagnosed with cancer	1	-

Baseline characteristics

End points

End points reporting groups

Reporting group title	Intervention arm
Reporting group description: Patients assigned to the intervention arm were treated with atorvastatin 80 mg AND ezetimibe 10 mg.	
Reporting group title	Placebo
Reporting group description: Patients treated with atorvastin 80 mg AND placebo	

Primary: Change in necrotic core

End point title	Change in necrotic core
End point description:	
End point type	Primary
End point timeframe: 12 months	

End point values	Intervention arm	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39[1]	38[2]		
Units: cubic millimeters				
median (inter-quartile range (Q1-Q3))	-0.2 (-2.2 to 2.3)	-0.3 (-2.7 to 2.6)		

Notes:

[1] - Change in most disesed 10 mm segment

[2] - Change in 10 mm most diseased segment

Statistical analyses

Statistical analysis title	Change from baseline
Comparison groups	Intervention arm v Placebo
Number of subjects included in analysis	77
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.05
Method	Wilcoxon (Mann-Whitney)

Adverse events

Adverse events information

Timeframe for reporting adverse events:

12 months

Assessment type	Systematic

Dictionary used

Dictionary name	Annual safety report
Dictionary version	N/A

Reporting groups

Reporting group title	SAE and AE

Reporting group description: -

Serious adverse events	SAE and AE		
Total subjects affected by serious adverse events			
subjects affected / exposed	17 / 22 (77.27%)		
number of deaths (all causes)	2		
number of deaths resulting from adverse events	0		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
c. pulm			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 1		
Tonsil cancer			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
Angina pectoris	Additional description: Admission with suspicion of angina pectoris		
subjects affected / exposed	8 / 22 (36.36%)		
occurrences causally related to treatment / all	0 / 8		
deaths causally related to treatment / all	0 / 0		
Repeated revascularization			
subjects affected / exposed	2 / 22 (9.09%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		

Atrial fibrillation			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Sudden death			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 1		
ICD implantation			
subjects affected / exposed	3 / 22 (13.64%)		
occurrences causally related to treatment / all	0 / 3		
deaths causally related to treatment / all	0 / 0		
Surgical and medical procedures			
coronary dissection			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Transient ischaemic attack			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	SAE and AE		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	5 / 22 (22.73%)		
Vascular disorders			
Claudicatio			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences (all)	1		
Social circumstances			
compliance problem			

subjects affected / exposed	2 / 22 (9.09%)		
occurrences (all)	1		
Respiratory, thoracic and mediastinal disorders			
Dyspnoea			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences (all)	1		
Hepatobiliary disorders			
Transaminases increased			
subjects affected / exposed	1 / 22 (4.55%)		
occurrences (all)	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