Clinical trial results:
Addition of liraglutide to overweight patients with type 2 diabetes treated with multiple daily insulin injections (MDI) with inadequate glycaemic control

Summary

EudraCT number	2012-001941-42
Trial protocol	SE
Global end of trial date	29 August 2014

Results information

Result version number	v1 (current)
This version publication date	23 June 2021
First version publication date	23 June 2021

Trial information

Trial identification

Sponsor protocol code	MDILiraglutid01/2012

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Västra Götalandsregionen
Sponsor organisation address	Fjällvägen 9, Uddevalla, Sweden, 45180
Public contact	Uddevalla Hospital, Medicinkliniken, Västra Götalandsregionen, +46 738311742,
Scientific contact	Uddevalla Hospital, Medicinkliniken, Västra Götalandsregionen, +46 738311742,

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 June 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	14 August 2014
Global end of trial reached?	Yes
Global end of trial date	29 August 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective of this study is to determine whether liraglutide, compared to placebo reduces the HbA1c level for type 2 diabetes patients with inadequate glycaemic control treated with multiple daily insulin injections.

Protection of trial subjects:

Rescue criteria excisted if patients had very high glucose levels during the trial. Patients were then allowed to recieve other glucose lowering agents than the insulin they were already treated with and Liraglutide/placebo.

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?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Sweden: 124
Worldwide total number of subjects	124
EEA total number of subjects	124

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)	70
From 65 to 84 years	54
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

February 2013-februray 2014 in Sweden

Pre-assignment

Screening details:

180 patients Randomiserad

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Liraglutide

Arm description:

Recieved Liraglutide as an add on treatment to Insuliin

Arm type	Active comparator
Investigational medicinal product name	Liraglutide
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Liraglutide was administered once Daily 0,6mmg the first week, 1,2mg the second week and 1,8mg from the third week

Arm title	Placebo

Arm description: -

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

Dosage and administration details:

Liraglutide was administered once Daily 0,6mmg the first week, 1,2mg the second week and 1,8mg from the third week

Number of subjects in period 1	Liraglutide	Placebo
Started	64	60
Completed	63	60
Not completed	1	0
Lost to follow-up	1	-

Baseline characteristics

Reporting groups	
Reporting group title	Liraglutide
Reporting group description: Recieved Liraglutide as an add on treatment to Insuliin	
Reporting group title	Placebo
Reporting group description: -	

Reporting group values	Liraglutide	Placebo	Total
Number of subjects	64	60	124
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)	36	34	70
From 65-84 years	28	26	54
85 years and over	0	0	0
Age continuous			
Mean (SD) for each arm			
Units: years			
arithmetic mean	63.7	63.5	
standard deviation	± 8.2	± 7.7	-
Gender categorical Units: Subjects			
Female	24	20	44
Male	40	40	80

Subject analysis sets	
Subject analysis set title	Full Analysis set
Subject analysis set type	Full analysis
Subject analysis set description: Full analysis set	

Reporting group values	Full Analysis set		
Number of subjects	122		
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)	69		
From 65-84 years	53		
85 years and over	0		
Age continuous			
Mean (SD) for each arm			
Units: years			
arithmetic mean	63.6		
standard deviation	± 8.0		
Gender categorical			
Units: Subjects			
Female	43		
Male	79		

End points

End points reporting groups

Reporting group title	Liraglutide
Reporting group description: Recieved Liraglutide as an add on treatment to Insuliin	
Reporting group title	Placebo
Reporting group description: -	
Subject analysis set title	Full Analysis set
Subject analysis set type	Full analysis
Subject analysis set description: Full analysis set	

Primary: Change in HbA1c

End point title	Change in HbA1c
End point description:	
End point type	Primary
End point timeframe: Baseline to week 24	

End point values	Liraglutide	Placebo	Full Analysis set	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	63[1]	59[2]	122	
Units: HbA1c				
arithmetic mean (standard deviation)	16.9 (± 10.34)	4.6 (± 9.73)	12.3 (± 14.1)	

Notes:
[1] - Liraglutide
[2] - Placebo

Statistical analyses

Statistical analysis title	Ancova
Comparison groups	Placebo v Liraglutide
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.05
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	-12.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-15.8
upper limit	-8.8

Variability estimate	Standard deviation
Dispersion value	14.1

Adverse events

Adverse events information	
Timeframe for reporting adverse events: August -December 2014	
Assessment type	Systematic
Dictionary used	
Dictionary name	MedDRA
Dictionary version	17
Reporting groups	
Reporting group title	placebo
Reporting group description: -	
Reporting group title	Liraglutide
Reporting group description: -	

Serious adverse events	placebo	Liraglutide	
Total subjects affected by serious adverse events			
subjects affected / exposed	4 / 60 (6.67%)	3 / 64 (4.69%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Vascular disorders			
Generalised oedema			
subjects affected / exposed	1 / 60 (1.67%)	0 / 64 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Atrial fibrillation			
subjects affected / exposed	1 / 60 (1.67%)	0 / 64 (0.00%)	
occurrences causally related to treatment / all	0 / 3	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac failure			
subjects affected / exposed	1 / 60 (1.67%)	0 / 64 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Surgical and medical procedures			
Hip surgery			

subjects affected / exposed	0 / 60 (0.00%)	1 / 64 (1.56%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Eye disorders			
Vitreous detachment			
subjects affected / exposed	1 / 60 (1.67%)	0 / 64 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Cholecystitis			
subjects affected / exposed	1 / 60 (1.67%)	0 / 64 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	placebo	Liraglutide	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	12 / 60 (20.00%)	54 / 64 (84.38%)	
Gastrointestinal disorders			
gastrointenstinal			
subjects affected / exposed	8 / 60 (13.33%)	30 / 64 (46.88%)	
occurrences (all)	8	30	
Nausea			
subjects affected / exposed	1 / 60 (1.67%)	21 / 64 (32.81%)	
occurrences (all)	1	21	
Diarrhoea			
subjects affected / exposed	3 / 60 (5.00%)	5 / 64 (7.81%)	
occurrences (all)	3	5	

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

Online references

http://www.ncbi.nlm.nih.gov/pubmed/26512041