Clinical trial results:
Treatment of antipsychotic associated obesity with a GLP-1 Analogue: the TAO study

Summary

EudraCT number	2012-005404-17
Trial protocol	DK
Global end of trial date	13 July 2015

Results information

Result version number	v1 (current)
This version publication date	08 May 2021
First version publication date	08 May 2021
Summary attachment (see zip file)	1 (acps.12711.pdf) 2 (acps.12795.pdf) 3 (dom.12795.pdf) 4 (dom.13204.pdf) 5 (e004158.full.pdf) 6 (fpsyt-09-00781.pdf)

Trial information

Trial identification

Sponsor protocol code	TAO-EX-2012

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Region Hovedstadens psykiatri
Sponsor organisation address	Kristineberg 3, 4., København Ø, Denmark, 2100
Public contact	Psychiatric Center Glostrup, Center for Neuropsychiatric Schizophrenia Research, 0045 2613 3832, bebdrup@cnsr.dk
Scientific contact	Psychiatric Center Glostrup, Center for Neuropsychiatric Schizophrenia Research, 0045 2613 3832, bebdrup@cnsr.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	05 January 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	13 July 2015
Global end of trial reached?	Yes
Global end of trial date	13 July 2015
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To investigate if 3 months treatment with a GLP-1-analogue can reduce antipsychotic associated obesity in non-diabetic patients with a diagnosis within the schizophrenic spectrum

Protection of trial subjects:

Full medication compliance was ensured by giving all subsequent injections in the home of the patient.

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: 45
Worldwide total number of subjects	45
EEA total number of subjects	45

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)	45
From 65 to 84 years	0

85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

In short, antipsychotic treated,
clinically stable schizophrenia spectrum patients (ICD-10
diagnoses F20.x and F25.x) between 18 and 65 years of age with
obesity were recruited from psychiatric clinics in the capital region of
Copenhagen, Denmark. Exclusion criteria included diabetes, current
substance dependency and pregnancy.

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

Arms

Are arms mutually exclusive?	Yes
Arm title	exenatide

Arm description: -

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

Dosage and administration details:

A subcutaneous injection with either exenatide 2 mg (fixed dose) or placebo once-weekly, was administered by unblinded trial personnel

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:

Placebo once-weekly injections, was administered by unblinded trial personnel.
Placebo injections were solvent from the Bydureon kit (without exenatide).

Number of subjects in period 1	exenatide	placebo
Started	23	22
Completed	20	20
Not completed	3	2
Adverse event, non-fatal	2	2
Lack of efficacy	1	-

Baseline characteristics

Reporting groups	
Reporting group title	overall trial

Reporting group description: -

Reporting group values	overall trial	Total	
Number of subjects	45	45	
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)		0	
From 65-84 years		0	
85 years and over		0	
Age continuous Units: years			
arithmetic mean	37.4		
standard deviation	± 10.7	-	
Gender categorical Units: Subjects			
Female	24	24	
Male	21	21	

End points

End points reporting groups

Reporting group title	exenatide
Reporting group description: -	
Reporting group title	placebo
Reporting group description: -	

Primary: WEIGHT LOSS

End point title	WEIGHT LOSS

End point description:

The primary outcome was loss of body weight after 3 months of treatment with exenatide once-weekly compared to placebo. Patients received no instructions on diet and exercise during the trial. Our power calculation was based on an expected difference in weight loss of 2.5 +/- 2.5 kg in the exenatide group vs 0 +/- 2.5 kg in the placebo group, and showed that, to reach a power of 0.8, a sample size of 16 patients in each group was needed.

End point type	Primary

End point timeframe:

End of trial

End point values	exenatide	placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	20	20		
Units: kilogram(s)				
number (confidence interval 95%)	2.2 (-1.1 to 5.5)	2.2 (-2.2 to 6.6)		

Statistical analyses

Statistical analysis title	rmANOVA

Statistical analysis description:

Primary and secondary outcomes were tested using rmANOVA. The between-subject factor, ie exenatide vs placebo, was denoted "Group," and the within-subject factor between time points was denoted "Time." A significant "Time × Group interaction" indicates a difference in response between the two treatment groups.

Comparison groups	exenatide v placebo
Number of subjects included in analysis	40
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.05
Method	ANOVA

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse events were recorded at patient visits by carer. At baseline and once a week for the remainder of the trial.

Adverse event reporting additional description:

The exenatide group reported more diarrhea (n = 5, 21.7%; P = .02) and fatigue (n = 4, 17.4%; P = .04) compared to 0% in the placebo group .
No other differences in adverse events were observed (P values > 0.16). A total of 6 serious adverse events were registered during the trial, but none were regarded as related to trial medication.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	16

Reporting groups

Reporting group title	exenatide
Reporting group description: -	
Reporting group title	placebo

Reporting group description: -

Serious adverse events	exenatide	placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 23 (0.00%)	0 / 22 (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: 0 %

Non-serious adverse events	exenatide	placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	9 / 23 (39.13%)	2 / 22 (9.09%)	
Nervous system disorders			
Dizziness			
subjects affected / exposed	0 / 23 (0.00%)	1 / 22 (4.55%)	
occurrences (all)	0	1	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	5 / 23 (21.74%)	0 / 22 (0.00%)	
occurrences (all)	5	0	
Psychiatric disorders			

Fatigue subjects affected / exposed occurrences (all)	4 / 23 (17.39%) 4	0 / 22 (0.00%) 0	
psychotic deterioation subjects affected / exposed occurrences (all)	0 / 23 (0.00%) 0	1 / 22 (4.55%) 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

Online references

http://www.ncbi.nlm.nih.gov/pubmed/30745885

http://www.ncbi.nlm.nih.gov/pubmed/29316175

http://www.ncbi.nlm.nih.gov/pubmed/28846820

http://www.ncbi.nlm.nih.gov/pubmed/28260235

http://www.ncbi.nlm.nih.gov/pubmed/27717222

http://www.ncbi.nlm.nih.gov/pubmed/24401727