Clinical trial results:
Prospective, randomised, double-blind, placebo-controlled, single centre phase IIa clinical trial to investigate the safety and tolerability as well as the impact of a substitution of sexual hormones with an estrogen-progestin combination over 10 weeks in addition to in-house psychotherapy on neuro-endocrinological parameters, psychopathology and neuro-psychological performance compared to in-house psychotherapy alone in adult females with anorexia nervosa

Summary

EudraCT number	2015-004184-36
Trial protocol	DE
Global end of trial date	14 January 2019

Results information

Result version number	v1 (current)
This version publication date	12 August 2020
First version publication date	12 August 2020

Trial information

Trial identification

Sponsor protocol code	UKER-AN-HS-01

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Universitätsklinikum Erlangen
Sponsor organisation address	Schwabachanlage 6, Erlangen, Germany, 91054
Public contact	Psychosomatische Abteilung, Universitätsklinikum Erlangen, +49 91318534898, George.Paslakis@uhn.ca
Scientific contact	Psychosomatische Abteilung, Universitätsklinikum Erlangen, George.Paslakis@uhn.ca

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	14 January 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	14 January 2019
Global end of trial reached?	Yes
Global end of trial date	14 January 2019
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

Quantification of the impact of the substitution of sexual hormones with an estrogen-progestin combination in addition to in-house psychotherapy on the neuro-psychological performance of female subjects with anorexia nervosa, measured by TMT A and B, Go/NoGo test and WCST

Protection of trial subjects:

Each subject was examined by a gynecologist prior to randomization and was excluded from study participation in case of contraindications (smoker, vascular complications in medical history or familiy history). Inpatient Setting during the entire period of participation with regular physical examinations, lab checks etc.

Background therapy:

Inpatient psychotherapy

Evidence for comparator:

Placebo-controlled

Actual start date of recruitment	04 January 2016
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	Germany: 11
Worldwide total number of subjects	11
EEA total number of subjects	11

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)	11

From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

females aged between 18 and 45 years, Anorexia nervosa acc. DSM 5 or sub-syndromal Anorexia nervosa, BMI ≥13 kg/m2 and ≤18,5 kg/m2

Period 1

Period 1 title	Screening
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Carer, Assessor

Arms

Are arms mutually exclusive?	Yes
Arm title	Verum

Arm description: -

Arm type	Experimental
Investigational medicinal product name	MAXIM 0,030mg/2mg coated tablet, encapsulated
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

daily dose: 1 capsule (0,03mg ethinylestradiol / 2mg dienogest), Duration of Administration: 10 weeks

Arm title	Control

Arm description: -

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

Daily dose: 1 capsule; Duration of Administration: 10 weeks

Number of subjects in period 1	Verum	Control
Started	6	5
Completed	6	5

Period 2	
Period 2 title	Treatment
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Carer, Assessor

Arms	
Are arms mutually exclusive?	Yes
Arm title	Verum

Arm description: -

Arm type	Experimental
Investigational medicinal product name	MAXIM 0,030mg/2mg coated tablet, encapsulated
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

daily dose: 1 capsule (0,03mg ethinylestradiol / 2mg dienogest), Duration of Administration: 10 weeks

Arm title	Control

Arm description: -

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

Daily dose: 1 capsule; Duration of Administration: 10 weeks

Number of subjects in period 2	Verum	Control
Started	6	5
Completed	4	5
Not completed	2	0
Consent withdrawn by subject	1	-
Adverse event, non-fatal	1	-

Period 3	
Period 3 title	Post-treatment
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Carer, Assessor

Arms	
Are arms mutually exclusive?	Yes
Arm title	Verum

Arm description: -

Arm type	Experimental
Investigational medicinal product name	MAXIM 0,030mg/2mg coated tablet, encapsulated
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

daily dose: 1 capsule (0,03mg ethinylestradiol / 2mg dienogest), Duration of Administration: 10 weeks

Arm title	Control

Arm description: -

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

Daily dose: 1 capsule; Duration of Administration: 10 weeks

Number of subjects in period 3	Verum	Control
Started	4	5
Completed	4	3
Not completed	0	2
Lost to follow-up	-	2

Baseline characteristics

Reporting groups

Reporting group title	Screening

Reporting group description: -

Reporting group values	Screening	Total	
Number of subjects	11	11	
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	25.27		
standard deviation	± 7.90	-	
Gender categorical Units: Subjects			
Female	11	11	
Male	0	0	
BMI Units: kg per square meter			
arithmetic mean	15.75		
standard deviation	± 1.59	-	
TMT A			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			
standard deviation	±	-	
TMT B			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			
standard deviation	±	-	
WCST errors			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			
standard deviation	±	-	
WCST perseveration			

neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
EDE-Q			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
EDI-2			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
STAI state			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
STAI trait			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
go/no-go test: Reaction times (RT)			
evaluated at V3 (day1): Food-shift: Verum: 398.89 +/- 31.58; Placebo: 379.29 +/- 23.87 Food-nonshift: Verum: 384.31 +/- 29.96; Placebo: 379.94 +/- 24.57 Neutral-shift: Verum: 403.54 +/- 25.66; Placebo: 385.40 +/- 17.97 Neutral-nonshift: see below			
Units: unit(s) arithmetic mean standard deviation	±	-	
go/no-go test: Commission errors (CE)			
evaluated at V3 (day1): Food-shift: Verum: 3.75 +/- 3.20; Placebo:4.80 +/- 6.42 Food-nonshift: Verum: 1.00 +/- 1.16; Placebo: 2.80 +/- 2.78 Neutral-shift: Verum: 6.25 +/- 4.50; Placebo: 7.80 +/- 1.64 Neutral-nonshift: see below			
Units: unit(s) arithmetic mean standard deviation	±	-	
PHQ-9			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
EDQoL			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	±	-	
LH Units: Unit(s)/litre			

arithmetic mean standard deviation	±	-	
FSH Units: Unit(s)/litre arithmetic mean standard deviation	±	-	
Estradiol Units: nanogram(s)/litre arithmetic mean standard deviation	±	-	
Testosteron Units: microgram(s)/litre arithmetic mean standard deviation	±	-	
Cortisol Units: unit(s) arithmetic mean standard deviation	±	-	
Ghrelin-OGTT			
0 min: Verum: 537.41 +/- 122.43; Placebo: 963.26 +/- 266.79 30 min: Verum: 417.64 +/- 129.85; Placebo: 814.96 +/- 175.24 60 min: Verum: 399.14 +/- 108.48; Placebo: 749.55 +/-218.63 90 min: Verum: 413.94 +/- 123.93; Placebo: 700.69 +/- 210.80 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±	-	
Leptin-OGTT			
0 min: Verum: 9.33 +/- 6.01; Placebo: 1.26 +/- 1.60 30 min: Verum: 9.07 +/- 4.95; Placebo: 0.82 +/- 0.89 60 min: Verum: 9.37 +/- 5.10; Placebo: 1.04 +/- 1.28 90 min: Verum: 7.79 +/- 4.58; Placebo: 0.94 +/- 1.16 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±	-	
Insulin-OGTT			
0 min: Verum: 10.60 +/- 2.96; Placebo: 4.40 +/- 2.52 30 min: Verum: 78.08 +/- 18.28; Placebo: 64.37 +/- 40.40 60 min: Verum: 83.10 +/- 37.71; Placebo: 74.04 +/- 56.71 90 min: Verum: 70.48 +/- 47.50; Placebo: 77.30 +/- 49.68 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±	-	
Glucose-OGTT			
0 min: Verum: 95.95 +/- 15.77; Placebo: 85.73 +/- 8.81 30 min: Verum: 156.87 +/- 44.23; Placebo: 134.08 +/- 27.36 60 min: Verum: 129.90 +/- 56.59; Placebo: 146.46 +/- 55.91 90 min: Verum: 104.80 +/- 36.75; Placebo: 136.00 +/- 61.13 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±	-	

Subject analysis sets	
Subject analysis set title	Verum Group
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to Verum and treated for 10 weeks (until v6)	
Subject analysis set title	Placebo group
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to Placebo and treated for 10 weeks (until v6)	
Subject analysis set title	Verum group II
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to Verum, treated for 10 weeks (until v6) and followed up until v7 (day 113 +/- 7 days)	
Subject analysis set title	Placebo Group II
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to placebo, treated for 10 weeks (until v6) and followed up until v7 (day 113 +/- 7 days)	

Reporting group values	Verum Group	Placebo group	Verum group II
Number of subjects	4	5	4
Age categorical Units: Subjects			
In utero Preterm newborn infants (gestational age < 37 wks) Newborns (0-27 days) Infants and toddlers (28 days-23 months) Children (2-11 years) Adolescents (12-17 years) Adults (18-64 years) From 65-84 years 85 years and over			
Age continuous Units: years arithmetic mean standard deviation	±	±	±
Gender categorical Units: Subjects			
Female Male			
BMI Units: kg per square meter arithmetic mean standard deviation	16.38 ± 1.73	15.22 ± 1.75	±
TMT A			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	29.50 ± 10.78	28.37 ± 7.76	±

TMT B			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean	41.52	53.45	
standard deviation	± 6.81	± 24.61	±
WCST errors			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean	11.25	7.60	
standard deviation	± 10.05	± 2.30	±
WCST perseveration			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean	5.00	4.00	
standard deviation	± 4.08	± 0.71	±
EDE-Q			
evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			3.18
standard deviation	±	±	± 1.28
EDI-2			
evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			312.25
standard deviation	±	±	± 85.11
STAI state			
evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			52.50
standard deviation	±	±	± 15.20
STAI trait			
evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			58.50
standard deviation	±	±	± 14.64
go/no-go test: Reaction times (RT)			
evaluated at V3 (day1): Food-shift: Verum: 398.89 +/- 31.58; Placebo: 379.29 +/- 23.87 Food-nonshift: Verum: 384.31 +/- 29.96; Placebo: 379.94 +/- 24.57 Neutral-shift: Verum: 403.54 +/- 25.66; Placebo: 385.40 +/- 17.97 Neutral-nonshift: see below			
Units: unit(s)			
arithmetic mean	400.20	396.00	
standard deviation	± 23.54	± 29.84	±
go/no-go test: Commission errors (CE)			
evaluated at V3 (day1): Food-shift: Verum: 3.75 +/- 3.20; Placebo:4.80 +/- 6.42 Food-nonshift: Verum: 1.00 +/- 1.16; Placebo: 2.80 +/- 2.78 Neutral-shift: Verum: 6.25 +/- 4.50; Placebo: 7.80 +/- 1.64 Neutral-nonshift: see below			
Units: unit(s)			
arithmetic mean	4.00	5.20	
standard deviation	± 3.65	± 3.03	±
PHQ-9			

evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			0.75
standard deviation	±	±	± 0.50
EDQoL			
evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			34.75
standard deviation	±	±	± 19.38
LH			
Units: Unit(s)/litre			
arithmetic mean	2.55	3.87	
standard deviation	± 2.16	± 3.94	±
FSH			
Units: Unit(s)/litre			
arithmetic mean	3.14	4.32	
standard deviation	± 1.43	± 3.44	±
Estradiol			
Units: nanogram(s)/litre			
arithmetic mean	50.70	16.49	
standard deviation	± 87.81	± 28.56	±
Testosteron			
Units: microgram(s)/litre			
arithmetic mean	0.13	0.13	
standard deviation	± 0.08	± 0.04	±
Cortisol			
Units: unit(s)			
arithmetic mean	8.62	73.04	
standard deviation	± 1.84	± 81.44	±
Ghrelin-OGTT			
0 min: Verum: 537.41 +/- 122.43; Placebo: 963.26 +/- 266.79 30 min: Verum: 417.64 +/- 129.85; Placebo: 814.96 +/- 175.24 60 min: Verum: 399.14 +/- 108.48; Placebo: 749.55 +/-218.63 90 min: Verum: 413.94 +/- 123.93; Placebo: 700.69 +/- 210.80 120 min: see below			
Units: unit(s)			
arithmetic mean	403.73	734.98	
standard deviation	± 157.86	± 248.21	±
Leptin-OGTT			
0 min: Verum: 9.33 +/- 6.01; Placebo: 1.26 +/- 1.60 30 min: Verum: 9.07 +/- 4.95; Placebo: 0.82 +/- 0.89 60 min: Verum: 9.37 +/- 5.10; Placebo: 1.04 +/- 1.28 90 min: Verum: 7.79 +/- 4.58; Placebo: 0.94 +/- 1.16 120 min: see below			
Units: unit(s)			
arithmetic mean	8.69	1.05	
standard deviation	± 5.06	± 1.33	±
Insulin-OGTT			
0 min: Verum: 10.60 +/- 2.96; Placebo: 4.40 +/- 2.52 30 min: Verum: 78.08 +/- 18.28; Placebo: 64.37 +/- 40.40 60 min: Verum: 83.10 +/- 37.71; Placebo: 74.04 +/- 56.71 90 min: Verum: 70.48 +/- 47.50; Placebo: 77.30 +/- 49.68 120 min: see below			
Units: unit(s)			
arithmetic mean	75.09	105.31	

standard deviation	± 46.45	± 109.48	±
Glucose-OGTT			
0 min: Verum: 95.95 +/- 15.77; Placebo: 85.73 +/- 8.81 30 min: Verum: 156.87 +/- 44.23; Placebo: 134.08 +/- 27.36 60 min: Verum: 129.90 +/- 56.59; Placebo: 146.46 +/- 55.91 90 min: Verum: 104.80 +/- 36.75; Placebo: 136.00 +/- 61.13 120 min: see below			
Units: unit(s)			
arithmetic mean	97.74	106.21	
standard deviation	± 6.74	± 42.85	±

Reporting group values	Placebo Group II		
Number of subjects	3		
Age categorical			
Units: Subjects			
In utero			
Preterm newborn infants (gestational age < 37 wks)			
Newborns (0-27 days)			
Infants and toddlers (28 days-23 months)			
Children (2-11 years)			
Adolescents (12-17 years)			
Adults (18-64 years)			
From 65-84 years			
85 years and over			
Age continuous			
Units: years			
arithmetic mean			
standard deviation	±		
Gender categorical			
Units: Subjects			
Female			
Male			
BMI			
Units: kg per square meter			
arithmetic mean			
standard deviation	±		
TMT A			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			
standard deviation	±		
TMT B			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			
standard deviation	±		
WCST errors			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s)			
arithmetic mean			
standard deviation	±		

WCST perseveration			
neuropsychological Performance test, evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 ±		
EDE-Q			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 3.57 ± 0.57		
EDI-2			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 324.33 ± 69.90		
STAI state			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 45.67 ± 17.62		
STAI trait			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 54.67 ± 13.58		
go/no-go test: Reaction times (RT)			
evaluated at V3 (day1): Food-shift: Verum: 398.89 +/- 31.58; Placebo: 379.29 +/- 23.87 Food-nonshift: Verum: 384.31 +/- 29.96; Placebo: 379.94 +/- 24.57 Neutral-shift: Verum: 403.54 +/- 25.66; Placebo: 385.40 +/- 17.97 Neutral-nonshift: see below			
Units: unit(s) arithmetic mean standard deviation	 ±		
go/no-go test: Commission errors (CE)			
evaluated at V3 (day1): Food-shift: Verum: 3.75 +/- 3.20; Placebo:4.80 +/- 6.42 Food-nonshift: Verum: 1.00 +/- 1.16; Placebo: 2.80 +/- 2.78 Neutral-shift: Verum: 6.25 +/- 4.50; Placebo: 7.80 +/- 1.64 Neutral-nonshift: see below			
Units: unit(s) arithmetic mean standard deviation	 ±		
PHQ-9			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 0.67 ± 0.58		
EDQoL			
evaluated at V3 (day1)			
Units: unit(s) arithmetic mean standard deviation	 35.33 ± 11.02		
LH			

Units: Unit(s)/litre arithmetic mean standard deviation	±		
FSH Units: Unit(s)/litre arithmetic mean standard deviation	±		
Estradiol Units: nanogram(s)/litre arithmetic mean standard deviation	±		
Testosteron Units: microgram(s)/litre arithmetic mean standard deviation	±		
Cortisol Units: unit(s) arithmetic mean standard deviation	±		
Ghrelin-OGTT			
0 min: Verum: 537.41 +/- 122.43; Placebo: 963.26 +/- 266.79 30 min: Verum: 417.64 +/- 129.85; Placebo: 814.96 +/- 175.24 60 min: Verum: 399.14 +/- 108.48; Placebo: 749.55 +/-218.63 90 min: Verum: 413.94 +/- 123.93; Placebo: 700.69 +/- 210.80 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±		
Leptin-OGTT			
0 min: Verum: 9.33 +/- 6.01; Placebo: 1.26 +/- 1.60 30 min: Verum: 9.07 +/- 4.95; Placebo: 0.82 +/- 0.89 60 min: Verum: 9.37 +/- 5.10; Placebo: 1.04 +/- 1.28 90 min: Verum: 7.79 +/- 4.58; Placebo: 0.94 +/- 1.16 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±		
Insulin-OGTT			
0 min: Verum: 10.60 +/- 2.96; Placebo: 4.40 +/- 2.52 30 min: Verum: 78.08 +/- 18.28; Placebo: 64.37 +/- 40.40 60 min: Verum: 83.10 +/- 37.71; Placebo: 74.04 +/- 56.71 90 min: Verum: 70.48 +/- 47.50; Placebo: 77.30 +/- 49.68 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±		
Glucose-OGTT			
0 min: Verum: 95.95 +/- 15.77; Placebo: 85.73 +/- 8.81 30 min: Verum: 156.87 +/- 44.23; Placebo: 134.08 +/- 27.36 60 min: Verum: 129.90 +/- 56.59; Placebo: 146.46 +/- 55.91 90 min: Verum: 104.80 +/- 36.75; Placebo: 136.00 +/- 61.13 120 min: see below			
Units: unit(s) arithmetic mean standard deviation	±		

End points

End points reporting groups

Reporting group title	Verum
Reporting group description: -	
Reporting group title	Control
Reporting group description: -	
Reporting group title	Verum
Reporting group description: -	
Reporting group title	Control
Reporting group description: -	
Reporting group title	Verum
Reporting group description: -	
Reporting group title	Control
Reporting group description: -	
Subject analysis set title	Verum Group
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to Verum and treated for 10 weeks (until v6)	
Subject analysis set title	Placebo group
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to Placebo and treated for 10 weeks (until v6)	
Subject analysis set title	Verum group II
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to Verum, treated for 10 weeks (until v6) and followed up until v7 (day 113 +/- 7 days)	
Subject analysis set title	Placebo Group II
Subject analysis set type	Sub-group analysis
Subject analysis set description: subjects randomized to placebo, treated for 10 weeks (until v6) and followed up until v7 (day 113 +/- 7 days)	

Primary: Change of the neuropsychological performance measured by TMT A after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point title	Change of the neuropsychological performance measured by TMT A after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone
End point description:	
End point type	Primary
End point timeframe: visit 6 (day 73 +/- 3 days)	

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: unit(s)				
arithmetic mean (standard deviation)	27.27 (± 5.59)	26.63 (± 8.40)		

Statistical analyses

Statistical analysis title	TMT A

Statistical analysis description:

Change in TMT A between V3 and V6 compared between Verum Group and Placebo group

Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.86 [1]
Method	ANOVA

Notes:

[1] - rm-ANOVA with 1rm factor (pre:V3/post:V6); TMT A as dependent variable and Group (Placebo vs. Verum) as between-subject factor.

Primary: Change of the neuropsychological performance measured by TMT B after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point title	Change of the neuropsychological performance measured by TMT B after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point description:

End point type	Primary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: unit(s)				
arithmetic mean (standard deviation)	39.28 (± 3.71)	35.50 (± 3.51)		

Statistical analyses

Statistical analysis title	TMT B

Statistical analysis description:

Change in TMT B between v3 (day 1) and v6 (day 73+/-3) compared between Verum Group and Placebo

Group

Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.6 [2]
Method	ANOVA

Notes:

[2] - rm ANOVA with 1rm factor (pre/post), TMT B as dependent variable and Group (Placebo vs. Verum) as between-subject factor.

Primary: Change of the neuropsychological performance measured by WCST errors after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) in the intervention group vs. the group with psychotherapy alone

End point title	Change of the neuropsychological performance measured by WCST errors after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) in the intervention group vs. the group with psychotherapy alone

End point description:

End point type	Primary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: unit(s)				
arithmetic mean (standard deviation)	7.50 (± 1.29)	6.80 (± 1.64)		

Statistical analyses

Statistical analysis title	WCST errors

Statistical analysis description:

Change in WCST Errors between visit 3 (day1) and visit 6 (day 73+/-3) compared between Verum Group and Placebo group

Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.42 [3]
Method	ANOVA

Notes:

[3] - rm-ANOVA with 1 factor (pre/post), WCST Errors as dependent variable and Group as between-subject factor.

Primary: Change of the neuropsychological performance measured by WCST perseveration after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) in the intervention group vs. the group with psychotherapy

alone	
End point title	Change of the neuropsychological performance measured by WCST perseveration after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) in the intervention group vs. the group with psychotherapy alone

End point description:

End point type	Primary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: unit(s)				
arithmetic mean (standard deviation)	3.75 (± 0.50)	2.80 (± 1.30)		

Statistical analyses

Statistical analysis title	WCST perseveration

Statistical analysis description:

Change in WCST Perseveration between visit 3 (day 1) and visit 6 (day 73 +/- 3 days) compared between Verum Group and Placebo group

Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.37 [4]
Method	ANOVA

Notes:

[4] - rm ANOVA with 1 factor (pre/post), WCST Perseveration as dependent variable and Group as between-subject factor

Primary: Change of the neuropsychological performance measured by go/no-go test: RT after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point title	Change of the neuropsychological performance measured by go/no-go test: RT after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point description:

Food-shift: Verum: 387.99 +/- 22.19; Placebo: 372.58 +/- 20.90
Food-nonshift: Verum: 385.39 +/- 30.98; Placebo: 370.72 +/- 19.68
Neutral-shift: Verum: 382.99 +/- 20.15; Placebo: 390.28 +/- 18.18
Neutral-nonshift: see below

End point type	Primary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: unit(s)				
arithmetic mean (standard deviation)	384.12 (± 15.12)	378.63 (± 20.30)		

Statistical analyses

Statistical analysis title	go/no-go: Reaction times (RT)
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.54 [5]
Method	ANOVA

Notes:

[5] - rm ANOVA with 3 rm factors (category: Food vs. neutral; shift-Status: shift vs. non-shift; time: V3/V6/V7); significant main effect of time (p=0.013); significant main effect of category (p=0.036); no main effect for group

Primary: Change of the neuropsychological performance measured by go/no-go test: CE after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point title	Change of the neuropsychological performance measured by go/no-go test: CE after 10 weeks of psychotherapy and sexual hormone substitution compared to V3 (day1) the intervention group vs. the group with psychotherapy alone

End point description:

Food-shift: Verum: 3.25 +/- 2.22; Placebo: 2.60 +/- 2.30
Food-nonshift: Verum: 1.25 +/- 1.26; Placebo:2.8 +/- 1.64
Neutral-shift: Verum: 3.75 +/- 1.89; Placebo: 7.60 +/- 2.07
Neutral-nonshift: see below

End point type	Primary

End point timeframe:

visit 7 (day 113 +/- 7 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: unit(s)				
arithmetic mean (standard deviation)	3.75 (± 1.89)	3.80 (± 1.64)		

Statistical analyses

Statistical analysis title	go/no-go test: Commission errors (CE)
Comparison groups	Placebo group v Verum Group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.38 [6]
Method	ANOVA

Notes:

[6] - rm ANOVA with 3 rm factors (category: Food vs. neutral; shift-Status: shift vs. non-shift; time: V3/V6/V7); significant main effect for shift Status (p<0.001); significant main effect for category (p=0. 005); no main effect for time (p= 0.15) or group

Secondary: change in scores of subscales "eating concern", "weight concern" and "shape concern" measured by the EDE-Q

End point title	change in scores of subscales "eating concern", "weight concern" and "shape concern" measured by the EDE-Q

End point description:

End point type	Secondary

End point timeframe:

visit 7 (day 113 +/- 7 days)

End point values	Verum group II	Placebo Group II		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	3		
Units: unit(s)				
arithmetic mean (standard deviation)	2.06 (± 1.38)	1.44 (± 1.11)		

Statistical analyses

Statistical analysis title	EDE-Q

Statistical analysis description:

Change in EDE-Q between V3, V6 and V7 compared between Verum Group and Placebo group

Comparison groups	Verum group II v Placebo Group II

Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.87 [7]
Method	ANOVA

Notes:

[7] - rm-ANOVA with 1 rm factor (V3/V6/V7), EDE-Q as dependent variable and Group as between-subject factor

Secondary: change in psychopathology measured by EDI-2

End point title	change in psychopathology measured by EDI-2

End point description:

End point type	Secondary

End point timeframe:

visit 7 (day 113 +/- 7 days)

End point values	Verum group II	Placebo Group II		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	3		
Units: unit(s)				
arithmetic mean (standard deviation)	277.00 (± 64.08)	263.67 (± 115.24)		

Statistical analyses

Statistical analysis title	EDI-2

Statistical analysis description:

Change in EDI-2 between V3, V6 and V7 compared between Verum Group and Placebo group

Comparison groups	Verum group II v Placebo Group II
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.93 [8]
Method	ANOVA

Notes:

[8] - rm-ANOVA with 1 rm factor (V3/V6/V7), EDE-Q as dependent variable and Group as between-subject factor.

Secondary: change in state anxiety measured by STAI state

End point title	change in state anxiety measured by STAI state

End point description:

End point type	Secondary

End point timeframe:

visit 7 (day 113 +/- 7 days)

End point values	Verum group II	Placebo Group II		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	3		
Units: unit(s)				
arithmetic mean (standard deviation)	48.00 (± 13.37)	44.67 (± 16.62)		

Statistical analyses

Statistical analysis title	STAI state

Statistical analysis description:

Change in STAI state between V3, V6 and V7 compared between Verum Group and Placebo group

Comparison groups	Verum group II v Placebo Group II
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.58 [9]
Method	ANOVA

Notes:

[9] - rm ANOVA with 1 rm factor (V3/V6/V7), STAI state as Independent variable and Group as between-subject factor.

Secondary: change in depressive co-morbidity measured by PHQ-9

End point title	change in depressive co-morbidity measured by PHQ-9

End point description:

End point type	Secondary

End point timeframe:

visit 7 (day 113 +/- 7 days)

End point values	Verum group II	Placebo Group II		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	3		
Units: unit(s)				
arithmetic mean (standard deviation)	0.25 (± 0.50)	0.33 (± 0.58)		

Statistical analyses

Statistical analysis title	PHQ-9
Comparison groups	Verum group II v Placebo Group II
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.88 [10]
Method	ANOVA

Notes:

[10] - rm ANOVA with 1 factor (V3/V6/V7), PHQ-9 as Independent variable and Group as between-subject factor

Secondary: change in quality of life associated with eating disorders measured by EDQoL

End point title	change in quality of life associated with eating disorders measured by EDQoL

End point description:

End point type	Secondary

End point timeframe:

visit 7 (day 113 +/- 7 days)

End point values	Verum group II	Placebo Group II		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	3		
Units: unit(s)				
arithmetic mean (standard deviation)	23.25 (± 18.25)	14.00 (± 11.27)		

Statistical analyses

Statistical analysis title	EDQoL
Comparison groups	Verum group II v Placebo Group II
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.84 [11]
Method	ANOVA

Notes:

[11] - rm ANOVA with 1 rm factor (V3/V6/V7), EDQoL as Independent variable an dgroup as between-subject factor

Secondary: change of plasma cortisol levels during a dexamethason suppression test

End point title	change of plasma cortisol levels during a dexamethason suppression test

End point description:

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[12]	4[13]		
Units: unit(s)				
arithmetic mean (standard deviation)	36.92 (± 9.64)	70.66 (± 85.54)		

Notes:

[12] - in one subject no values available

[13] - in one subject no values available

Statistical analyses

Statistical analysis title	Cortisol
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.36 [14]
Method	ANOVA

Notes:

[14] - rm ANOVA with 1 rm factor (time), Cortisol concentrations as dependent variable and Group as between-subject factor.

Secondary: change of sexual hormone plasma levels: LH

End point title	change of sexual hormone plasma levels: LH

End point description:

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[15]	3[16]		
Units: Unit(s)/litre				
arithmetic mean (standard deviation)	0.11 (± 0.19)	3.34 (± 2.93)		

Notes:

[15] - in one subject no values available

[16] - in two subjects no values available

Statistical analyses

Statistical analysis title	LH
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	6
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.28 [17]
Method	ANOVA

Notes:

[17] - rm ANOVA with 1 rm factor (time), LH as dependent variable and Group as between-subject factor

Secondary: change of plasma levels of appetite-regulating peptids: Ghrelin

End point title	change of plasma levels of appetite-regulating peptids: Ghrelin

End point description:

0 min: Verum: 432.96 +/- 188.20; Placebo: 762.79 +/- 241.07
30 min: Verum: 342.58 +/- 174.46; Placebo: 700.78 +/- 301.00
60 min: Verum: 281.27 +/- 148.63; Placebo: 636.42 +/- 255.08
90 min: Verum: 291.24 +/- 153.63; Placebo: 642.78 +/- 270.31
120 min: see below

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[18]	4[19]		
Units: unit(s)				
arithmetic mean (standard deviation)	320.11 (± 138.06)	691.18 (± 271.94)		

Notes:

[18] - in one subject no values available

[19] - in one subject no values available

Statistical analyses

Statistical analysis title	Ghrelin-OGTT
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.07 [20]
Method	ANOVA

Notes:

[20] - rm ANOVA with 2 rm factors (OGTT time Points; time pre/post), Ghrelin concentrations as dependent variable and Group as between-subject factor

Secondary: number of AE

End point title	number of AE

End point description:

End point type	Secondary

End point timeframe:
from visit 3 (day 1) to visit 7 (day 113 +/- 7 days)

End point values	Verum	Control		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	6	5		
Units: whole numbers >/= 0	6	5		

Statistical analyses

No statistical analyses for this end point

Secondary: Change in trait anxiety measured by STAI trait

End point title	Change in trait anxiety measured by STAI trait

End point description:

End point type	Secondary

End point timeframe:
visit 7 (day 113 +/- 7 days)

End point values	Verum group II	Placebo Group II		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	3		
Units: unit(s)				
arithmetic mean (standard deviation)	48.50 (± 15.16)	42.67 (± 18.77)		

Statistical analyses

Statistical analysis title	STAI trait

Statistical analysis description:
Change in STAI trait between V3, V6 and V7 compared between Verum Group and Placebo group

Comparison groups	Verum group II v Placebo Group II
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.66 [21]
Method	ANOVA

Notes:

[21] - rm ANOVA with 1 factor (V3/V6/V7), STAI trait as Independent variable and Group as between-subject factor.

Secondary: change of sexual hormone plasma levels: FSH

End point title	change of sexual hormone plasma levels: FSH

End point description:

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[22]	3[23]		
Units: Unit(s)/litre				
arithmetic mean (standard deviation)	0.17 (± 0.29)	3.48 (± 2.63)		

Notes:

[22] - In one subject value missing

[23] - In two subjects value missing

Statistical analyses

Statistical analysis title	FSH
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	6
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.14 [24]
Method	ANOVA

Notes:

[24] - rm ANOVA with 1 rm factor (time), FSH as dependent variable and Group as between-subject factor.

Secondary: change of sexual hormone plasma levels: Estradiol

End point title	change of sexual hormone plasma levels: Estradiol

End point description:

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[25]	3[26]		
Units: nanogram(s)/litre				
arithmetic mean (standard deviation)	0 (± 0)	42.25 (± 55.05)		

Notes:

[25] - in one subject no value available

[26] - in two subjects no value available

Statistical analyses

Statistical analysis title	Estradiol
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	6
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.53 [27]
Method	ANOVA

Notes:

[27] - rm ANOVA with 1 rm factor (time), estradiol as dependent variable and Group as between-subject factor.

Secondary: change of sexual hormone plasma levels: Testosteron

End point title	change of sexual hormone plasma levels: Testosteron

End point description:

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[28]	3[29]		
Units: microgram(s)/litre				
arithmetic mean (standard deviation)	0.16 (± 0.07)	0.13 (± 0.05)		

Notes:

[28] - in one subject no value available

[29] - in two subjects no value available

Statistical analyses

Statistical analysis title	Testosteron
Comparison groups	Verum Group v Placebo group

Number of subjects included in analysis	6
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.28 [30]
Method	ANOVA

Notes:

[30] - rm ANOVA with 1 rm factor (time), Testosteron as dependent variable and Group as between-subject factor

Secondary: change of plasma levels of appetite-regulating peptids: Leptin

End point title	change of plasma levels of appetite-regulating peptids: Leptin

End point description:

0 min: Verum: 21.84 +/- 11.15; Placebo: 3.33 +/- 2.72
30 min: Verum: 18.99 +/- 5.38; Placebo: 2.99 +/- 2.34
60 min: Verum: 15.49 +/- 6.38; Placebo: 3.08 +/- 2.68
90 min: Verum: 18.60 +/- 7.84; Placebo: 2.95 +/- 2.50
120 min: see below

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[31]	4[32]		
Units: unit(s)				
arithmetic mean (standard deviation)	19.13 (± 9.61)	3.45 (± 3.27)		

Notes:

[31] - in one subject no values available

[32] - in one subject no values available

Statistical analyses

Statistical analysis title	Leptin-OGTT
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.016 [33]
Method	ANOVA

Notes:

[33] - rm ANOVA with 2 rm factors (OGTT time Points and pre/post), Leptin concentrations as dependent variable and Group as between-subject factor

Secondary: change of plasma levels of Insulin

End point title	change of plasma levels of Insulin

End point description:

0 min: Verum: 11.39 +/- 4.67; Placebo: 6.45 +/- 3.57
30 min: Verum: 79.66 +/- 45.12; Placebo: 48.38 +/- 21.61
60 min: Verum: 88.00 +/- 33.64; Placebo: 42.91 +/- 19.23
90 min: Verum: 91.46 +/- 55.16; Placebo: 44.73 +/- 25.84
120 min: see below

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[34]	4[35]		
Units: unit(s)				
arithmetic mean (standard deviation)	79.56 (± 26.29)	21.91 (± 12.69)		

Notes:

[34] - in one subject no values available

[35] - in one subject no values available

Statistical analyses

Statistical analysis title	Insulin-OGTT
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.44 [36]
Method	ANOVA

Notes:

[36] - rm ANOVA with 2 rm factors (time Point of the OGTT and pre/post), Insulin concentrations as the dependent variable and Group as between-subject factor.

Secondary: change of plasma levels of Glucose

End point title	change of plasma levels of Glucose

End point description:

0 min: Verum: 107.19 +/- 21.59; Placebo: 84.37 +/- 11.28
30 min: Verum: 178.20 +/- 64.42; Placebo: 125.20 +/- 25.07
60 min: Verum: 152.73 +/- 46.07; Placebo: 107.54 +/- 55.02
90 min: Verum: 131.09 +/- 29.29; Placebo: 90.04 +/- 32.33
120 min: see below

End point type	Secondary

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	3[37]	4[38]		
Units: unit(s)				
arithmetic mean (standard deviation)	122.36 (± 31.26)	77.64 (± 16.96)		

Notes:

[37] - in one subject no values available

[38] - in one subject no values available

Statistical analyses

Statistical analysis title	Glucose-OGTT
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	7
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.44 [39]
Method	ANOVA

Notes:

[39] - rm ANOVA with 2 rm factors (OGTT time Points and pre/post), Glucose concentration as dependent variable and Group as between-subject factor.

Other pre-specified: Change in BMI

End point title	Change in BMI

End point description:

End point type	Other pre-specified

End point timeframe:

visit 6 (day 73 +/- 3 days)

End point values	Verum Group	Placebo group		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	5		
Units: kg/m2				
arithmetic mean (standard deviation)	18.45 (± 1.59)	17.66 (± 1.97)		

Statistical analyses

Statistical analysis title	BMI
Comparison groups	Verum Group v Placebo group
Number of subjects included in analysis	9
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.49 [40]
Method	ANOVA

Notes:

[40] - rm ANOVA with 1 rm factor (time); significant main effect for time (p=0.023), no main effect for group

Adverse events

Adverse events information	
Timeframe for reporting adverse events: visit 3 (day 1) to visit 7 (day 113 +/- 7 days)	
Assessment type	Systematic
Dictionary used	
Dictionary name	MedDRA
Dictionary version	22.1
Reporting groups	
Reporting group title	Verum
Reporting group description: -	
Reporting group title	Control
Reporting group description: -	

Serious adverse events	Verum	Control	
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 6 (16.67%)	0 / 5 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Gastrointestinal disorders			
Oesophagitis			
subjects affected / exposed	1 / 6 (16.67%)	0 / 5 (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: 5 %

Non-serious adverse events	Verum	Control	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	2 / 6 (33.33%)	3 / 5 (60.00%)	
Investigations			
Blood lactate dehydrogenase increased			
subjects affected / exposed	1 / 6 (16.67%)	0 / 5 (0.00%)	
occurrences (all)	1	0	
Blood thyroid stimulating hormone increased			

subjects affected / exposed	1 / 6 (16.67%)	0 / 5 (0.00%)	
occurrences (all)	1	0	
Injury, poisoning and procedural complications			
Concussion			
subjects affected / exposed	1 / 6 (16.67%)	0 / 5 (0.00%)	
occurrences (all)	1	0	
Foot fracture			
subjects affected / exposed	0 / 6 (0.00%)	1 / 5 (20.00%)	
occurrences (all)	0	1	
General disorders and administration site conditions			
Oedema peripheral			
subjects affected / exposed	1 / 6 (16.67%)	1 / 5 (20.00%)	
occurrences (all)	1	1	
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	0 / 6 (0.00%)	1 / 5 (20.00%)	
occurrences (all)	0	1	
Respiratory, thoracic and mediastinal disorders			
Oropharyngeal pain			
subjects affected / exposed	1 / 6 (16.67%)	0 / 5 (0.00%)	
occurrences (all)	1	0	
Metabolism and nutrition disorders			
Hyponatraemia			
subjects affected / exposed	0 / 6 (0.00%)	1 / 5 (20.00%)	
occurrences (all)	0	2	

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.

Early Termination due to poor recruitment, therefore no reliable statistical analyses could be performed

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/29631553