Clinical trial results:
EFFECT OF STW5 (Iberogast ®) AND STW5-II (Iberogast N®) ON TRANSIT AND TOLERANCE OF INTESTINAL GAS

Summary

EudraCT number	2019-003976-38
Trial protocol	ES
Global end of trial date	31 January 2023

Results information

Result version number	v1 (current)
This version publication date	13 December 2024
First version publication date	13 December 2024
Summary attachment (see zip file)	Part 1 IBS. Publication (Neurogastroenterology Motil - 2024.pdf)

Trial information

Trial identification

Sponsor protocol code	IBO

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04656730
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Vall d'Hebron Institut de Recerca (VHIR)
Sponsor organisation address	Passeig de la Vall d'Hebron, 119-129,, Barcelona, Spain, 08035
Public contact	info@scienhub.org, ScienHub Research Support - CRO, +34 93497 84 14,
Scientific contact	info@scienhub.org, ScienHub Research Support - CRO, +34 93497 84 14,
Sponsor organisation name	Institut de recerca Germans Trias i Pujol (IGTP)
Sponsor organisation address	Carretera Canyet S/N, Badalona, Spain, 08916
Public contact	ScienHub Research Support - CRO, ScienHub Research Support - CRO, 34 934978414, info@scienhub.org
Scientific contact	ScienHub Research Support - CRO, ScienHub Research Support - CRO, 34 934978414, info@scienhub.org

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	25 April 2023
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	31 January 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To determine the effect of STW5 and STW5-II on transit and evacuation of intestinal gas in subjects with functional dyspepsia and irritable bowel syndrome according to Rome IV criteria.

Protection of trial subjects:

Not specified

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 March 2020
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	Spain: 52
Worldwide total number of subjects	52
EEA total number of subjects	52

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)	49
From 65 to 84 years	3
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Participants will be recruited at the Gastroenterology Department/HUGTIP and at the Digestive Functional Testing Unit/Hospital Universitari Vall d´Hebrón.

Pre-assignment

Screening details:

Participants ≥18 years old with Confirmed Irritable Bowel Syndrome (IBS) or Functional Dyspepsia (FD) diagnosis per Rome IV criteria and with active symptoms of bloating.

Period 1

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

Blinding implementation details:

A double-blind/masking technique will be used. STW5, STW5-II, and placebo will be packaged identically to maintain blinding. The subject, the investigator, and Sponsor personnel or delegate(s) involved in the subjects' treatment or clinical evaluation are unaware of the group assignments. The Pharmacy Service will dispense the STW5/ STW5-II /placebo to the participant according to the participating codes assigned by the randomization process.

Arms

Are arms mutually exclusive?	Yes
Arm title	Iberogast (STW5)

Arm description:

STW5 (Iberogast ®): 20 drops three times per day (TID) for 14 days

Arm type	Experimental
Investigational medicinal product name	Iberogast
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral drops
Routes of administration	Oral use

Dosage and administration details:

20 drops three times per day (TID) for 14 days

Arm title	Iberogast Placebo

Arm description:

20 drops three times per day (TID) for 14 days

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

Dosage and administration details:

20 drops three times per day (TID) for 14 days

Arm title	Iberogast N (STW5-II)

Arm description:	
STW5-II (Iberogast® N): 20 drops three times per day (TID) for 14 days	
Arm type	Experimental
Investigational medicinal product name	Iberogast® N
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral drops
Routes of administration	Oral use
Dosage and administration details:	
20 drops three times per day (TID) for 14 days	
Arm title	Iberogast N Placebo
Arm description:	
20 drops three times per day (TID) for 14 days	
Arm type	Placebo
Investigational medicinal product name	Iberogast® N Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral drops
Routes of administration	Oral use
Dosage and administration details:	
20 drops three times per day (TID) for 14 days	

Number of subjects in period 1	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)
Started	14	11	15
Completed	14	11	15

Number of subjects in period 1	Iberogast N Placebo
Started	12
Completed	12

Baseline characteristics

Reporting groups	
Reporting group title	Iberogast (STW5)
Reporting group description:	
STW5 (Iberogast ®): 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast Placebo
Reporting group description:	
20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast N (STW5-II)
Reporting group description:	
STW5-II (Iberogast® N): 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast N Placebo
Reporting group description:	
20 drops three times per day (TID) for 14 days	

Reporting group values	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)
Number of subjects	14	11	15
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)	11	10	14
From 65-84 years	3	1	1
85 years and over	0	0	0
Gender categorical Units: Subjects			
Female	13	10	14
Male	1	1	1

Reporting group values	Iberogast N Placebo	Total	
Number of subjects	12	52	
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)	9	44	
From 65-84 years	3	8	

85 years and over	0	0	

Gender categorical Units: Subjects			
Female	12	49	
Male	0	3	

End points

End points reporting groups	
Reporting group title	Iberogast (STW5)
Reporting group description: STW5 (Iberogast ®): 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast Placebo
Reporting group description: 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast N (STW5-II)
Reporting group description: STW5-II (Iberogast® N): 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast N Placebo
Reporting group description: 20 drops three times per day (TID) for 14 days	

Primary: To compare final gas retention	
End point title	To compare final gas retention
End point description: To compare final gas retention (calculated as total gas infused minus total gas evacuated) after a gas challenge test performed after 2 weeks treatment with Iberogast® or Iberogast N® vs placebo.	
End point type	Primary
End point timeframe: At 2 weeks	

End point values	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)	Iberogast N Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	14	11	15	12
Units: Gastric Belching				
arithmetic mean (standard error)	2.1 (± 4.1)	0.8 (± 1.8)	1.5 (± 2.4)	2.2 (± 3.6)

Statistical analyses

Statistical analysis title	STUDENT T TEST/ WILCOXON SIGNED-RANK TEST

Statistical analysis description:

The Kolmogorov-Smirnov test will be used to check the normality of data distribution. Comparisons of parametric, normally- distributed data will be performed by ANOVA, and Students t-test will be used for post-hoc comparisons. Non-parametric data will be compared using the Kruskal-Wallis-test, and the Mann-Whitney U test for post-hoc comparisons.

Comparison groups	Iberogast (STW5) v Iberogast Placebo v Iberogast N (STW5-II) v Iberogast N Placebo

Number of subjects included in analysis	52
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.015 [1]
Method	t-test, 2-sided
Parameter estimate	Mean difference (final values)
Point estimate	173
Confidence interval	
level	95 %
sides	2-sided
lower limit	8
upper limit	508
Variability estimate	Standard error of the mean
Dispersion value	0.05

Notes:

[1] - 0.015 after 20 minutes from infusion starts.
Differences will be considered statistically significant when p-value is <0.05.

Secondary: To compare the perception of abdominal symptoms induced by the gas challenge test

End point title	To compare the perception of abdominal symptoms induced by the gas challenge test

End point description:

To compare the perception of abdominal symptoms induced by the gas challenge test after 2 weeks treatment with Iberogast® or Iberogast N® vs placebo.

End point type	Secondary

End point timeframe:

At 2 weeks

End point values	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)	Iberogast N Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	14	11	15	12
Units: Score				
arithmetic mean (standard deviation)	0.7 (± 0.4)	2.2 (± 0.5)	0.8 (± 0.4)	1.4 (± 0.6)

Statistical analyses

No statistical analyses for this end point

Secondary: To compare the objective abdominal distension (measured by a tape measure) induced by the gas challenge test

End point title	To compare the objective abdominal distension (measured by a tape measure) induced by the gas challenge test

End point description:

To compare the objective abdominal distension (measured by a tape measure) induced by the gas challenge test after 2 weeks treatment with Iberogast® or Iberogast N® vs placebo.

End point type	Secondary

End point timeframe:
At 2 weeks

End point values	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)	Iberogast N Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	14	11	15	12
Units: mm				
arithmetic mean (standard deviation)	10 (± 3)	10 (± 3)	8 (± 3)	9 (± 2)

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: 2 weeks	
Assessment type	Systematic
Dictionary used	
Dictionary name	MedDRA
Dictionary version	26.1
Reporting groups	
Reporting group title	Iberogast (STW5)
Reporting group description: STW5 (Iberogast ®): 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast Placebo
Reporting group description: 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast N (STW5-II)
Reporting group description: STW5-II (Iberogast® N): 20 drops three times per day (TID) for 14 days	
Reporting group title	Iberogast N Placebo
Reporting group description: 20 drops three times per day (TID) for 14 days	

Serious adverse events	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 14 (0.00%)	0 / 11 (0.00%)	0 / 15 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

Serious adverse events	Iberogast N Placebo		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 12 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

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

Non-serious adverse events	Iberogast (STW5)	Iberogast Placebo	Iberogast N (STW5-II)
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 14 (7.14%)	0 / 11 (0.00%)	4 / 15 (26.67%)
General disorders and administration site conditions			
Abdominal pain			
subjects affected / exposed	0 / 14 (0.00%)	0 / 11 (0.00%)	0 / 15 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			
Colonic bleeding	Additional description: Mild colonic bleeding during a colonic polypectomy that required no treatment		
subjects affected / exposed	0 / 14 (0.00%)	0 / 11 (0.00%)	1 / 15 (6.67%)
occurrences (all)	0	0	1
Respiratory, thoracic and mediastinal disorders			
Upper respiratory tract infection			
subjects affected / exposed	1 / 14 (7.14%)	0 / 11 (0.00%)	2 / 15 (13.33%)
occurrences (all)	1	0	2
Renal and urinary disorders			
Urine tract infection			
subjects affected / exposed	0 / 14 (0.00%)	0 / 11 (0.00%)	0 / 15 (0.00%)
occurrences (all)	0	0	0
Infections and infestations			
COVID-19			
subjects affected / exposed	0 / 14 (0.00%)	0 / 11 (0.00%)	1 / 15 (6.67%)
occurrences (all)	0	0	1
Influenza			
subjects affected / exposed	0 / 14 (0.00%)	0 / 11 (0.00%)	0 / 15 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	Iberogast N Placebo		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	3 / 12 (25.00%)		
General disorders and administration site conditions			
Abdominal pain			
subjects affected / exposed	1 / 12 (8.33%)		
occurrences (all)	1		
Gastrointestinal disorders			
Colonic bleeding	Additional description: Mild colonic bleeding during a colonic polypectomy that required no treatment		

subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0		
Respiratory, thoracic and mediastinal disorders Upper respiratory tract infection subjects affected / exposed occurrences (all)	 0 / 12 (0.00%) 0		
Renal and urinary disorders Urine tract infection subjects affected / exposed occurrences (all)	 1 / 12 (8.33%) 1		
Infections and infestations COVID-19 subjects affected / exposed occurrences (all) Influenza subjects affected / exposed occurrences (all)	 0 / 12 (0.00%) 0 1 / 12 (8.33%) 1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
21 April 2021	Sponsor Modification (Vall d'Hebron Institut de Recerca (VHIR)) and addition of a new study site (HOSPITAL UNIVERSITARI VALL D'HEBRON).

Notes:

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.

The study IBO consists of two substudies (Part 1: IBS) and (Part 2), with the same EudraCT. The full data set has been completed for the phase 2 study as it is not possible to add the full data set for both studies. See the summary attached.

Notes: