



## Clinical trial results:

### **A Phase IIa, Double-Blind, Placebo-Controlled, Study of ESN364 Administered for 12 Weeks to Evaluate Efficacy, Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics in Women Presenting With Uterine Fibroids.**

#### **Summary**

EudraCT number	2014-004425-41
Trial protocol	BE DE AT
Global end of trial date	04 January 2017

#### **Results information**

Result version number	v1 (current)
This version publication date	28 December 2017
First version publication date	28 December 2017

#### **Trial information**

##### **Trial identification**

Sponsor protocol code	ESN364-UF-02
-----------------------	--------------

##### **Additional study identifiers**

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

Notes:

##### **Sponsors**

Sponsor organisation name	Ogeda S.A.
Sponsor organisation address	47 Rue Adrienne Bolland, Gosselies, Belgium, 6047
Public contact	Clinical Trial Disclosure, Ogeda S.A, astellas.resultsdisclosure@astellas.com
Scientific contact	Clinical Trial Disclosure, Ogeda S.A, astellas.resultsdisclosure@astellas.com

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	27 March 2017
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	04 January 2017
Was the trial ended prematurely?	Yes

Notes:

## General information about the trial

Main objective of the trial:

To evaluate efficacy of two doses of ESN364 versus placebo when administered for 12 weeks to reduce excessive uterine bleeding (assessed by Pictorial Blood Loss Assessment Chart [PBAC]).

Protection of trial subjects:

This study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki and the International Conference on Harmonization (ICH) Note for Guidance on Good Clinical Practice (GCP) (CPMP/ICH/135/95) and with applicable local requirements.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	21 April 2015
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	Belgium: 16
Country: Number of subjects enrolled	France: 2
Country: Number of subjects enrolled	Germany: 5
Worldwide total number of subjects	23
EEA total number of subjects	23

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)	23
From 65 to 84 years	0



## Subject disposition

### Recruitment

Recruitment details: -

### Pre-assignment

Screening details:

31 subjects were screened. 23 subjects were randomized and all 23 subjects completed the study. Pre-menopausal women between 18 and 55 yrs diagnosed with UF and no surgical intervention for myoma within the last 5 yrs.

### 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, Carer, Assessor

Blinding implementation details:

Blinding was achieved by the double-dummy method with placebo identical in smell, taste and appearance

### Arms

Are arms mutually exclusive?	Yes
------------------------------	-----

<b>Arm title</b>	ESN364 60 mg
------------------	--------------

Arm description: -

Arm type	Experimental
Investigational medicinal product name	ESN364
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

Subjects received an oral dose of ESN364 60 mg once daily up to 12 weeks

<b>Arm title</b>	ESN364 180 mg
------------------	---------------

Arm description: -

Arm type	Experimental
Investigational medicinal product name	ESN364
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

Subjects received an oral dose of ESN364 180 mg once daily up to 12 weeks

<b>Arm title</b>	Placebo
------------------	---------

Arm description: -

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

---

Dosage and administration details:

Subjects received an oral dose of Placebo once daily up to 12 weeks

<b>Number of subjects in period 1</b>	ESN364 60 mg	ESN364 180 mg	Placebo
Started	10	6	7
Completed	10	6	7

## Baseline characteristics

### Reporting groups

Reporting group title	ESN364 60 mg
Reporting group description: -	
Reporting group title	ESN364 180 mg
Reporting group description: -	
Reporting group title	Placebo
Reporting group description: -	

Reporting group values	ESN364 60 mg	ESN364 180 mg	Placebo
Number of subjects	10	6	7
Age categorical Units: Subjects			
Adults (18-64 years)	10	6	7
Gender categorical Units: Subjects			
Female	10	6	7

Reporting group values	Total		
Number of subjects	23		
Age categorical Units: Subjects			
Adults (18-64 years)	23		
Gender categorical Units: Subjects			
Female	23		

## End points

### End points reporting groups

Reporting group title	ESN364 60 mg
Reporting group description:	-
Reporting group title	ESN364 180 mg
Reporting group description:	-
Reporting group title	Placebo
Reporting group description:	-

### Primary: Change from Baseline in Decreased Uterine Bleeding as Assessed by Pictorial Blood Loss Assessment Chart (PBAC) at Week 12

End point title	Change from Baseline in Decreased Uterine Bleeding as Assessed by Pictorial Blood Loss Assessment Chart (PBAC) at Week 12 <sup>[1]</sup>
-----------------	--

#### End point description:

Uterine bleeding was assessed with the use of PBAC, validated self reporting method to estimate menstrual blood loss. Subjects recorded daily use of tampons and towels and the degree to which they were soiled with blood. Scores ranged from 0 to more than 500 with higher numbers indicating more bleeding. Analysis population was Intent-to-treat (ITT) and it consisted of all randomized subjects who received at least one dose of study drug and who had post-baseline efficacy data.

End point type	Primary
----------------	---------

#### End point timeframe:

From baseline to week 12

#### Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: The study was terminated early due to a low recruitment rate resulting in a lower number of subjects in the analysis. Therefore, the efficacy analysis was limited to descriptive statistics and listings for the primary endpoint.

End point values	ESN364 60 mg	ESN364 180 mg	Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	10	6	7	
Units: PBAC score				
arithmetic mean (standard deviation)	-114.34 ( $\pm$ 223.59)	-90.57 ( $\pm$ 206.96)	20.77 ( $\pm$ 95.09)	

### Statistical analyses

No statistical analyses for this end point

### Primary: Percentage of Subjects with Decreased PBAC Score of >30% and >50% from Baseline to Week 12

End point title	Percentage of Subjects with Decreased PBAC Score of >30% and >50% from Baseline to Week 12 <sup>[2]</sup>
-----------------	---

#### End point description:

Percentage of subjects with decreased PBAC score of >30% and >50% per treatment arm. Analysis

population was Intent-to-treat (ITT)

End point type	Primary
----------------	---------

End point timeframe:

At week 12

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: The study was terminated early due to a low recruitment rate resulting in a lower number of subjects in the analysis. Therefore, the efficacy analysis was limited to descriptive statistics and listings for the primary endpoint.

End point values	ESN364 60 mg	ESN364 180 mg	Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	10	6	7	
Units: Percentage of Decrease in PBAC score				
number (not applicable)				
>30%	50.0	33.3	28.6	
>50%	40.0	16.7	14.3	

## Statistical analyses

No statistical analyses for this end point

### Primary: Percentage of Subjects with PBAC Score <75 from Baseline to Week 12

End point title	Percentage of Subjects with PBAC Score <75 from Baseline to Week 12 <sup>[3]</sup>
-----------------	--

End point description:

This primary efficacy analysis represents a descriptive statistic of the proportion of patients, per treatment arm, with PBAC scores <75 at week 12, in percentages. Analysis population was Intent-to-treat (ITT)

End point type	Primary
----------------	---------

End point timeframe:

At week 12

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: The study was terminated early due to a low recruitment rate resulting in a lower number of subjects in the analysis. Therefore, the efficacy analysis was limited to descriptive statistics and listings for the primary endpoint.

End point values	ESN364 60 mg	ESN364 180 mg	Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	10	6	7	
Units: PBAC Score in percentages				
number (not applicable)				
PBAC score <75	30.0	0.0	14.3	

## Statistical analyses

No statistical analyses for this end point

### Other pre-specified: Pharmacodynamics: Changes from baseline in Hormone Concentrations at week 12

End point title	Pharmacodynamics: Changes from baseline in Hormone Concentrations at week 12
-----------------	--

End point description:

Changes from baseline in mean hormone concentrations per timepoint during treatment

End point type	Other pre-specified
----------------	---------------------

End point timeframe:

At week 12

End point values	ESN364 60 mg	ESN364 180 mg	Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	10	6	7	
Units: Hormone				
arithmetic mean (standard deviation)				
LH (mIU/mL)	-2.16 (± 3.10)	8.52 (± 15.58)	-0.63 (± 4.87)	
Progesterone (ng/mL)	1.49 (± 2.96)	-0.03 (± 0.41)	3.93 (± 6.51)	
SHBG (nmol/L)	-5.67 (± 13.25)	-5.35 (± 8.32)	10.70 (± 8.91)	
Estradiol (nmol/L)	-0.07 (± 0.21)	-0.08 (± 0.37)	0.32 (± 0.28)	
FSH (IU/L)	0.10 (± 6.88)	19.03 (± 37.43)	-5.69 (± 11.70)	
Cortisol (nmol/L)	33.20 (± 85.19)	59.80 (± 63.64)	-11.70 (± 129.16)	
Androstenedione (nmol/L)	-0.84 (± 2.23)	0.07 (± 1.17)	-0.51 (± 2.53)	
Aldosterone (pmol/L)	-459.00 (± 1313.60)	-42.30 (± 239.55)	118.10 (± 269.11)	
DHEA-S (ug/dL)	11.30 (± 41.56)	6.70 (± 31.26)	11.00 (± 14.21)	
ACTH (pmol/L)	0.54 (± 1.29)	0.48 (± 0.80)	-0.33 (± 0.80)	
Prolactin (ng/mL)	-4.96 (± 6.64)	-2.85 (± 5.29)	-1.41 (± 3.46)	

## Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

TEAEs during treatment period. From first treatment administration date time to last treatment administration date + 6 days with 23:59 added as time part.

Assessment type	Systematic
-----------------	------------

### Dictionary used

Dictionary name	MedDRA
-----------------	--------

Dictionary version	18
--------------------	----

### Reporting groups

Reporting group title	ESN364 60 mg
-----------------------	--------------

Reporting group description:

Subjects received an oral dose of ESN364 60 mg once daily up to 12 weeks.

Reporting group title	ESN364 180 mg
-----------------------	---------------

Reporting group description:

Subjects received an oral dose of ESN364 180 mg once daily up to 12 weeks.

Reporting group title	Placebo
-----------------------	---------

Reporting group description:

Subjects received an oral dose of Placebo once daily up to 12 weeks.

<b>Serious adverse events</b>	ESN364 60 mg	ESN364 180 mg	Placebo
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 10 (0.00%)	0 / 6 (0.00%)	0 / 7 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

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

<b>Non-serious adverse events</b>	ESN364 60 mg	ESN364 180 mg	Placebo
Total subjects affected by non-serious adverse events			
subjects affected / exposed	8 / 10 (80.00%)	6 / 6 (100.00%)	6 / 7 (85.71%)
Vascular disorders			
Hypotension			
subjects affected / exposed	0 / 10 (0.00%)	1 / 6 (16.67%)	0 / 7 (0.00%)
occurrences (all)	0	1	0
General disorders and administration site conditions			
Asthenia			

subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
<b>Fatigue</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	4 / 6 (66.67%) 6	1 / 7 (14.29%) 1
<b>Influenza like illness</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	1 / 7 (14.29%) 1
<b>Pain</b> subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
<b>Reproductive system and breast disorders</b> <b>Breast tenderness</b> subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
<b>Dysmenorrhoea</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	3 / 6 (50.00%) 5	2 / 7 (28.57%) 5
<b>Menopausal symptoms</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	1 / 7 (14.29%) 1
<b>Metrorrhagia</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
<b>Pelvic pain</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	1 / 7 (14.29%) 1
<b>Respiratory, thoracic and mediastinal disorders</b> <b>Asthma</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
<b>Cough</b> subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
<b>Investigations</b>			

Alanine aminotransferase increased subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
Aspartate aminotransferase increased subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
Blood creatine phosphokinase increased subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Electrocardiogram T wave abnormal subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Electrocardiogram T wave inversion subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Gamma-glutamyltransferase increased subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
Injury, poisoning and procedural complications			
Arthropod bite subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Procedural pain subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	2 / 6 (33.33%) 2	0 / 7 (0.00%) 0
Cardiac disorders			
Left atrial dilatation subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Sinus arrhythmia subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Nervous system disorders			

Headache subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	4 / 6 (66.67%) 6	2 / 7 (28.57%) 2
Blood and lymphatic system disorders Anaemia subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	1 / 7 (14.29%) 1
Iron deficiency anaemia subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
Ear and labyrinth disorders Vertigo subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Gastrointestinal disorders Abdominal distension subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Abdominal pain subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 4	0 / 7 (0.00%) 0
Abdominal pain upper subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 2	0 / 7 (0.00%) 0
Vomiting subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
Nausea subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 6 (0.00%) 0	0 / 7 (0.00%) 0
Skin and subcutaneous tissue disorders Acne subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 6 (16.67%) 1	0 / 7 (0.00%) 0
Dermatitis contact subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	0 / 6 (0.00%) 0	1 / 7 (14.29%) 1

Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	1 / 10 (10.00%)	0 / 6 (0.00%)	0 / 7 (0.00%)
occurrences (all)	1	0	0
Back pain			
subjects affected / exposed	0 / 10 (0.00%)	2 / 6 (33.33%)	0 / 7 (0.00%)
occurrences (all)	0	2	0
Infections and infestations			
Bronchitis			
subjects affected / exposed	0 / 10 (0.00%)	1 / 6 (16.67%)	0 / 7 (0.00%)
occurrences (all)	0	1	0
Gastroenteritis viral			
subjects affected / exposed	1 / 10 (10.00%)	0 / 6 (0.00%)	0 / 7 (0.00%)
occurrences (all)	1	0	0
Hordeolum			
subjects affected / exposed	1 / 10 (10.00%)	0 / 6 (0.00%)	0 / 7 (0.00%)
occurrences (all)	1	0	0
Nasopharyngitis			
subjects affected / exposed	1 / 10 (10.00%)	0 / 6 (0.00%)	1 / 7 (14.29%)
occurrences (all)	1	0	1
Urinary tract infection			
subjects affected / exposed	0 / 10 (0.00%)	1 / 6 (16.67%)	0 / 7 (0.00%)
occurrences (all)	0	1	0

## 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.

The study was terminated early due to a low recruitment rate resulting in a lower number of subjects in the analysis. Therefore, the efficacy analysis was limited to descriptive statistics and listings for the primary endpoint.

Notes: