



Clinical trial results:

Study: Reduces intravenous lidocaine the need for alfentanil during colonoscopy under Procedural Sedation and Analgesia?

Summary

| | |
|--------------------------|------------------|
| EudraCT number | 2016-002210-46 |
| Trial protocol | NL |
| Global end of trial date | 27 November 2018 |

Results information

| | |
|-----------------------------------|-------------------------|
| Result version number | v1 (current) |
| This version publication date | 05 July 2020 |
| First version publication date | 05 July 2020 |
| Summary attachment (see zip file) | Abstract (Abstract.pdf) |

Trial information

Trial identification

| | |
|-----------------------|------|
| Sponsor protocol code | LiSA |
|-----------------------|------|

Additional study identifiers

| | |
|------------------------------------|----------------|
| ISRCTN number | ISRCTN47787339 |
| ClinicalTrials.gov id (NCT number) | - |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | Radboud University Medical Centre |
| Sponsor organisation address | Geert Grooteplein Zuid 10, Nijmegen, Netherlands, 6525 GA |
| Public contact | Twan Aalbers, RadboudUMC, 0031 243614406, twan.aalbers@radboudumc.nl |
| Scientific contact | Twan Aalbers, RadboudUMC, 0031 243614406, twan.aalbers@radboudumc.nl |

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 | 18 March 2019 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 27 November 2018 |
| Global end of trial reached? | Yes |
| Global end of trial date | 27 November 2018 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

to evaluate whether continuous infusion of lidocaine reduces the need for alfentanil in diagnostic colonoscopy in patients with Crohn disease or ulcerative colitis.

Protection of trial subjects:

Patients will receive an intravenous line and are monitored with noninvasive systemic blood pressure, ECG, pulse oximetry and capnography. Supplemental oxygen (3 L/min) is standardly administered by a nasal cannula.

The Ramsey Sedation Scale scores will be maintained at 4-5 during colonoscopy and if needed, an additional 20 mg bolus of propofol is administered.

The pain score is measured with the Facial Pain Rating Scale (Wong baker face scale). An additional alfentanil dose of 0.25 mg is given when a score of 4 or higher is observed.

Background therapy: -

Evidence for comparator: -

| | |
|---|------------------|
| Actual start date of recruitment | 01 December 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 | Netherlands: 76 |
| Worldwide total number of subjects | 76 |
| EEA total number of subjects | 76 |

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) | 76 |

| | |
|---------------------|---|
| From 65 to 84 years | 0 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details:

recruitment period: 24-11-2016, end 13-11-2018

Participants were recruited at the preoperative outpatient clinic of the anesthesiology, radboudumc, the Netherlands.

Pre-assignment

Screening details:

All patients with IBD, between 18 and 65 years, which are scheduled for a colonoscopy with PSA, will be screened for this study.

assessed for eligibility 137 patients

Pre-assignment period milestones

| | |
|------------------------------|----|
| Number of subjects started | 76 |
| Number of subjects completed | 76 |

Period 1

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

Blinding implementation details:

Medication is drawn up into a 50 ml syringe on the surgical department by a qualified unblinded research

team member immediately before administration and handed over to the physician assistant.

Arms

| | |
|--|--|
| Are arms mutually exclusive? | Yes |
| Arm title | placebo |
| Arm description: - | |
| Arm type | Placebo |
| Investigational medicinal product name | Natriumchloride 0,9 %, |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Suspension for injection in pre-filled syringe |
| Routes of administration | Intravenous use |

Dosage and administration details:

The placebo group will receive saline in equivalent volumes and time as the intervention group: bolus 0.15 ml/kg followed by a continuous infusion of 0.2 ml/kg during colonoscopy

| | |
|--|---|
| Arm title | lidocaine |
| Arm description: - | |
| Arm type | Active comparator |
| Investigational medicinal product name | Lidocainehydrochloride 10 mg/ml |
| Investigational medicinal product code | PR1 |
| Other name | |
| Pharmaceutical forms | Solution for infusion in pre-filled syringe |
| Routes of administration | Intravenous use |

Dosage and administration details:

The intervention group receives lidocaine 1.5 mg/kg in 5 minutes followed by a continuous infusion of 2 mg/kg/hour body weight intravenously

| Number of subjects in period 1 | placebo | lidocaine |
|---------------------------------------|---------|-----------|
| Started | 38 | 38 |
| Completed | 38 | 38 |

Baseline characteristics

Reporting groups

| | |
|--------------------------------|-----------|
| Reporting group title | placebo |
| Reporting group description: - | |
| Reporting group title | lidocaine |
| Reporting group description: - | |

| Reporting group values | placebo | lidocaine | Total |
|------------------------|---------|-----------|-------|
| Number of subjects | 38 | 38 | 76 |
| Age categorical | | | |
| Units: Subjects | | | |
| Adults (18-64 years) | 38 | 38 | 76 |
| Age continuous | | | |
| Units: years | | | |
| arithmetic mean | 38 | 37 | |
| standard deviation | ± 11 | ± 14 | - |
| Gender categorical | | | |
| Units: Subjects | | | |
| Female | 17 | 15 | 32 |
| Male | 21 | 23 | 44 |
| Disease | | | |
| Units: Subjects | | | |
| Crohn | 31 | 31 | 62 |
| Colitis ulcerosa | 7 | 7 | 14 |
| BMI | | | |
| Units: kg.m-2 | | | |
| arithmetic mean | 25.2 | 24.2 | |
| standard deviation | ± 4.3 | ± 3.1 | - |
| Duration of PSA | | | |
| Units: minutes | | | |
| arithmetic mean | 33 | 32 | |
| standard deviation | ± 10 | ± 10 | - |

Subject analysis sets

| | |
|--|---------------|
| Subject analysis set title | placebo |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| placebo | |
| Subject analysis set title | lidocaine |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| lidocaine 1.5 mg/kg in 5 minutes followed by a continuous infusion of 2 mg/kg/hour body weight intravenously | |

| Reporting group values | placebo | lidocaine | |
|--|---------|-----------|--|
| Number of subjects | 38 | 38 | |
| Age categorical Units: Subjects | | | |
| Adults (18-64 years) | 38 | 38 | |
| Age continuous Units: years arithmetic mean standard deviation | ± | ± | |
| Gender categorical Units: Subjects | | | |
| Female Male | | | |
| Disease Units: Subjects | | | |
| Crohn Colitis ulcerosa | | | |
| BMI Units: kg.m-2 arithmetic mean standard deviation | ± | ± | |
| Duration of PSA Units: minutes arithmetic mean standard deviation | ± | ± | |

End points

End points reporting groups

| | |
|--|---------------|
| Reporting group title | placebo |
| Reporting group description: - | |
| Reporting group title | lidocaine |
| Reporting group description: - | |
| Subject analysis set title | placebo |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| placebo | |
| Subject analysis set title | lidocaine |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| lidocaine 1.5 mg/kg in 5 minutes followed by a continuous infusion of 2 mg/kg/hour body weight intravenously | |

Primary: Alfentanil dosage

| | |
|------------------------|-------------------|
| End point title | Alfentanil dosage |
| End point description: | |
| End point type | Primary |
| End point timeframe: | |
| End of procedure | |

| End point values | placebo | lidocaine | | |
|--------------------------------------|------------------|------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 38 | 38 | | |
| Units: microgram(s) | | | | |
| arithmetic mean (standard deviation) | 868 (\pm 647) | 632 (\pm 519) | | |

Statistical analyses

| | |
|---|---------------------|
| Statistical analysis title | overall analysis |
| Comparison groups | placebo v lidocaine |
| Number of subjects included in analysis | 76 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| P-value | = 0.082 |
| Method | t-test, 2-sided |

Secondary: Propofol dosage

| | |
|--|-----------------|
| End point title | Propofol dosage |
| End point description: | |
| End point type | Secondary |
| End point timeframe: end of procedure | |

| End point values | placebo | lidocaine | | |
|--------------------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 38 | 38 | | |
| Units: milligram(s) | | | | |
| arithmetic mean (standard deviation) | 387 (± 106) | 349 (± 85) | | |

Statistical analyses

| | |
|--|---------------------|
| Statistical analysis title | propofol |
| Statistical analysis description: propofol dosage | |
| Comparison groups | placebo v lidocaine |
| Number of subjects included in analysis | 76 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| P-value | = 0.095 |
| Method | t-test, 2-sided |

Secondary: hypoxia

| | |
|--|-----------|
| End point title | hypoxia |
| End point description: | |
| End point type | Secondary |
| End point timeframe: end of procedure | |

| End point values | placebo | lidocaine | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 38 | 38 | | |
| Units: number of incidence | 10 | 8 | | |

Statistical analyses

| | |
|---|---------------------|
| Statistical analysis title | hypoxia |
| Statistical analysis description: incidence of hypoxia, An oxygen desaturation below 92% or interventions with the intention of improving the oxygen saturation will be recorded as an adverse event.[13] These interventions include the following: Vigorous tactile stimulation Airway repositioning Suctioning Increased oxygen delivery Oral or nasal airway placement Application of positive pressure or ventilation with bag mask | |
| Comparison groups | placebo v lidocaine |
| Number of subjects included in analysis | 76 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| P-value | = 0.788 |
| Method | Chi-squared |

Secondary: hypotension

| | |
|--|-------------|
| End point title | hypotension |
| End point description: | |
| End point type | Secondary |
| End point timeframe: end of procedure | |

| End point values | placebo | lidocaine | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 38 | 38 | | |
| Units: number of incidence | 0 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: postcolonoscopy pain

| | |
|--|----------------------|
| End point title | postcolonoscopy pain |
| End point description: | |
| End point type | Secondary |
| End point timeframe: end of procedure | |

| End point values | placebo | lidocaine | | |
|--|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 38 | 38 | | |
| Units: NRS score | | | | |
| arithmetic mean (full range (min-max)) | 0 (0 to 8) | 0 (0 to 8) | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

from start of procedure to at least 30 minutes after procedure

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

Dictionary used

| | |
|-----------------|--------|
| Dictionary name | castor |
|-----------------|--------|

| | |
|--------------------|---|
| Dictionary version | 1 |
|--------------------|---|

Reporting groups

| | |
|-----------------------|---------|
| Reporting group title | placebo |
|-----------------------|---------|

Reporting group description: -

| | |
|-----------------------|-----------|
| Reporting group title | lidocaine |
|-----------------------|-----------|

Reporting group description: -

| Serious adverse events | placebo | lidocaine | |
|---|----------------|----------------|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 38 (0.00%) | 0 / 38 (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: 5 %

| Non-serious adverse events | placebo | lidocaine | |
|---|-------------------------------------|-----------------|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 10 / 38 (26.32%) | 8 / 38 (21.05%) | |
| Respiratory, thoracic and mediastinal disorders | | | |
| hypoxia | Additional description: SpO2 < 92 % | | |
| subjects affected / exposed | 10 / 38 (26.32%) | 8 / 38 (21.05%) | |
| occurrences (all) | 38 | 38 | |

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.

| |
|---|
| Procedures were performed by several endoscopist and we did not include technically difficulty as a variable since this can be related to uncomfortable procedure.(22) This could have influenced our conclusions regarding the effect of lidocaine on al |
|---|

Notes: