



Clinical trial results:

Vitamin D supplementation in polymorphic light eruption: Randomized double-blinded placebo-controlled trial

Summary

| | |
|--------------------------|----------------|
| EudraCT number | 2012-000300-15 |
| Trial protocol | AT |
| Global end of trial date | 27 May 2015 |

Results information

| | |
|--------------------------------|-----------------|
| Result version number | v1 (current) |
| This version publication date | 04 October 2019 |
| First version publication date | 04 October 2019 |

Trial information

Trial identification

| | |
|-----------------------|---------------|
| Sponsor protocol code | VitD_PLE_2012 |
|-----------------------|---------------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT01595893 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | Medical University of Graz |
| Sponsor organisation address | Auenbruggerplatz 8, Graz, Austria, 8036 |
| Public contact | Information Klinische Studie, Medical University of Graz, 43 316385 12538, dermatologie@medunigraz.at |
| Scientific contact | Information Klinische Studie, Medical University of Graz, Univ. Klinik Dermatologie, 43 316385 12538, dermatologie@medunigraz.at |

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 | 24 October 2015 |
| Is this the analysis of the primary completion data? | No |
| Global end of trial reached? | Yes |
| Global end of trial date | 27 May 2015 |
| Was the trial ended prematurely? | Yes |

Notes:

General information about the trial

Main objective of the trial:

To determine whether oral vitamin D supplementation abrogates the pathogenic mechanisms in PLE and prevents the manifestation of the disease.

Protection of trial subjects:

The study did not contain any painful and stressful procedures and thus no specific measures had to be put in place to protect trial subjects, in particular for example measures to minimise pain and distress.

Background therapy: -

Evidence for comparator: -

| | |
|---|---------------|
| Actual start date of recruitment | 05 March 2012 |
| 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 | Austria: 26 |
| Worldwide total number of subjects | 26 |
| EEA total number of subjects | 26 |

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) | 24 |
| From 65 to 84 years | 2 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details:

Recruitment took place at the Medical University of Graz, Department of Dermatology. All patients provided written informed consent before starting any trial specific measures.

Pre-assignment

Screening details:

28 patients prescreened

26 patients screened and enrolled

10 patients had vitamin D levels < 30 ng/ml and thus qualified for the active study phase. One of these 10 patients dropped out before any active study procedure for personal reasons. Another patient had to be excluded due to high Parathormone Levels.

Pre-assignment period milestones

| | |
|----------------------------|-------------------|
| Number of subjects started | 28 ^[1] |
|----------------------------|-------------------|

| | |
|------------------------------|----|
| Number of subjects completed | 26 |
|------------------------------|----|

Pre-assignment subject non-completion reasons

| | |
|----------------------------|-----------------------------|
| Reason: Number of subjects | Adverse event, non-fatal: 1 |
|----------------------------|-----------------------------|

| | |
|----------------------------|---------------------------------|
| Reason: Number of subjects | Consent withdrawn by subject: 1 |
|----------------------------|---------------------------------|

Notes:

[1] - The number of subjects reported to have started the pre-assignment period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: Twenty-eight PLE patients were pre-screened and twenty-six patients (20 females and 6 males; mean age 46 years, range 24–76) were subjected to definite screening and first study visit between January and June of 2012 to 2014, before showing any manifestation of the disease in the season of enrolment. Two prescreened patients were not enrolled in the study. One patient was diagnosed with lupus erythematosus and one patient withdrew from the trial before any study procedure was done.

Period 1

| | |
|----------------|--------------------------------|
| Period 1 title | Overall trial (overall period) |
|----------------|--------------------------------|

| | |
|------------------------------|-----|
| Is this the baseline period? | Yes |
|------------------------------|-----|

| | |
|-------------------|----------------|
| Allocation method | Not applicable |
|-------------------|----------------|

| | |
|---------------|-------------|
| Blinding used | Not blinded |
|---------------|-------------|

Arms

| | |
|-----------|-----------|
| Arm title | Screening |
|-----------|-----------|

Arm description:

The clinical trial was prematurely terminated after 26 patients had been screened, since it became evident that the majority of patients had 25(OH)D serum levels above 30 ng ml⁻¹ and addressing the original study hypothesis (that oral vitamin D supplementation does protect against PLE) was neither reachable within a proper time frame nor appropriate and thus this analysis was not executed.

| | |
|----------|-----------|
| Arm type | Screening |
|----------|-----------|

| | |
|--|-------------|
| Investigational medicinal product name | Vitamine D3 |
|--|-------------|

| | |
|--|--|
| Investigational medicinal product code | |
|--|--|

| | |
|------------|------------|
| Other name | Oleovit D3 |
|------------|------------|

| | |
|----------------------|------------|
| Pharmaceutical forms | Oral drops |
|----------------------|------------|

| | |
|--------------------------|----------|
| Routes of administration | Oral use |
|--------------------------|----------|

Dosage and administration details:

40,000 IE vitamin D3 per 70 kg body weight, given twice (2 weeks apart)

| Number of subjects in period 1 | Screening |
|---------------------------------------|-----------|
| Started | 26 |
| Completed | 26 |

Baseline characteristics

Reporting groups

| | |
|--------------------------------|---------------|
| Reporting group title | Overall trial |
| Reporting group description: - | |

| Reporting group values | Overall trial | Total | |
|---|---------------|-------|--|
| Number of subjects | 26 | 26 | |
| Age categorical | | | |
| 28 patients prescreened 26 patients screened and enrolled 10 patients had vitamin D levels < 30 ng/ml and thus qualified for the active study phase One of these 10 patients dropped out before any active study procedure for personal reasons Another patient had to be excluded due to high Parathormone levels Thus, together, only 8 patients reached the active study phase: 5 received placebo 3 received Vitamin D | | | |
| 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 | | | |
| Twenty-eight PLE patients were pre-screened and twenty-six patients (20 females and 6 males; mean age 46 years, range 24–76) were subjected to definite screening and first study visit between January and June of 2012 to 2014, before showing any manifestation of the disease in the season of enrolment. | | | |
| Units: years | | | |
| arithmetic mean | 46 | | |
| full range (min-max) | 24 to 76 | - | |
| Gender categorical | | | |
| Units: Subjects | | | |
| Female | 20 | 20 | |
| Male | 6 | 6 | |

Subject analysis sets

| | |
|----------------------------|--------------------|
| Subject analysis set title | Treg numbers |
| Subject analysis set type | Intention-to-treat |

Subject analysis set description:

The clinical trial was prematurely terminated after 26 patients had been screened, since it became evident that the majority of patients had 25(OH)D serum levels above 30 ng ml⁻¹ and addressing the original study hypothesis (that oral vitamin D supplementation does protect against PLE) was neither reachable within a proper time frame nor appropriate and thus this analysis was not executed. The analysis of this report therefore focuses on investigating a possible influence of season on baseline Treg numbers, Treg function and vitamin D serum levels in 26 PLE patients at the time point of first study

visit (TP1), taking place in the period spanning from January to June, whereas the other time points were omitted from the present analysis. Grouping of patients at TP1 in two periods, the winter period for those recruited from day 10 to 42 and the spring/early summer period for those recruited from day 108 to 176, allowed comparison of Treg numbers and function with respect to the season.

| Reporting group values | Treg numbers | | |
|---|--------------|--|--|
| Number of subjects | 26 | | |
| Age categorical | | | |
| <p>28 patients prescreened 26 patients screened and enrolled 10 patients had vitamin D levels < 30 ng/ml and thus qualified for the active study phase One of these 10 patients dropped out before any active study procedure for personal reasons Another patient had to be excluded due to high Parathormone levels</p> <p>Thus, together, only 8 patients reached the active study phase: 5 received placebo 3 received Vitamin D</p> | | | |
| 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 | | | |
| <p>Twenty-eight PLE patients were pre-screened and twenty-six patients (20 females and 6 males; mean age 46 years, range 24-76) were subjected to definite screening and first study visit between January and June of 2012 to 2014, before showing any manifestation of the disease in the season of enrolment.</p> | | | |
| Units: years | | | |
| arithmetic mean full range (min-max) | | | |
| Gender categorical | | | |
| Units: Subjects | | | |
| Female | 20 | | |
| Male | 6 | | |

End points

End points reporting groups

| | |
|-----------------------|-----------|
| Reporting group title | Screening |
|-----------------------|-----------|

Reporting group description:

The clinical trial was prematurely terminated after 26 patients had been screened, since it became evident that the majority of patients had 25(OH)D serum levels above 30 ng ml⁻¹ and addressing the original study hypothesis (that oral vitamin D supplementation does protect against PLE) was neither reachable within a proper time frame nor appropriate and thus this analysis was not executed.

| | |
|----------------------------|--------------|
| Subject analysis set title | Treg numbers |
|----------------------------|--------------|

| | |
|---------------------------|--------------------|
| Subject analysis set type | Intention-to-treat |
|---------------------------|--------------------|

Subject analysis set description:

The clinical trial was prematurely terminated after 26 patients had been screened, since it became evident that the majority of patients had 25(OH)D serum levels above 30 ng ml⁻¹ and addressing the original study hypothesis (that oral vitamin D supplementation does protect against PLE) was neither reachable within a proper time frame nor appropriate and thus this analysis was not executed. The analysis of this report therefore focuses on investigating a possible influence of season on baseline Treg numbers, Treg function and vitamin D serum levels in 26 PLE patients at the time point of first study visit (TP1), taking place in the period spanning from January to June, whereas the other time points were omitted from the present analysis. Grouping of patients at TP1 in two periods, the winter period for those recruited from day 10 to 42 and the spring/early summer period for those recruited from day 108 to 176, allowed comparison of Treg numbers and function with respect to the season.

Primary: Effect of Vitamin D to protect from clinical manifestation of PLE

| | |
|-----------------|---|
| End point title | Effect of Vitamin D to protect from clinical manifestation of |
|-----------------|---|

End point description:

None of the predefined end points were analysed since the recruitment rate was insufficient and the study was therefore prematurely terminated.

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

End point timeframe:

within 144 hours

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 prematurely terminated. Predefined end points were not analysed.

| End point values | Screening | | | |
|-----------------------------|-----------------|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 26 | | | |
| Units: Units on a score | 26 | | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information^[1]

Timeframe for reporting adverse events:

2012/04 - 2015/05/31

| | |
|-----------------|----------------|
| Assessment type | Non-systematic |
|-----------------|----------------|

Dictionary used

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

| | |
|--------------------|---|
| Dictionary version | c |
|--------------------|---|

Reporting groups

| | |
|-----------------------|--------------------|
| Reporting group title | Active study phase |
|-----------------------|--------------------|

Reporting group description:

26 patients screened and enrolled

10 patients had vitamin D levels < 30 ng/ml and thus qualified for the active study Phase. One of these 10 patients dropped out before any active study procedure for personal reasons Another patient had to be excluded due to high Parathormone levels

| Serious adverse events | Active study phase | | |
|---|--------------------|--|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 8 (0.00%) | | |
| number of deaths (all causes) | 0 | | |
| number of deaths resulting from adverse events | 0 | | |

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

| Non-serious adverse events | Active study phase | | |
|---|--------------------|--|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 0 / 8 (0.00%) | | |

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.

Justification: 26 patients screened and enrolled

10 patients had vitamin D levels < 30 ng/ml and thus qualified for the active study Phase. One of these 10 patients dropped out before any active study procedure for personal reasons Another patient had to be excluded due to high Parathormone Levels.

The clinical trial was prematurely terminated after 26 patients had been screened. The majority of screened patients did not meet the main inclusion criterion which was a 25(OH)D serum level below 30 ng ml⁻¹.

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

The clinical trial was prematurely terminated after 26 patients had been screened, since it became evident that the majority of patients had 25(OH)D serum levels above 30 ng ml⁻¹, addressing the study hypothesis was neither reachable nor appropriate

Notes:

Online references

<http://www.ncbi.nlm.nih.gov/pubmed/26911519>