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Study to compare the treatment effects of Ginkgo biloba extract EGb 761® and Pentoxifylline in patients who suffer from tinnitus for more than three months and from psychological and social problems caused by the tinnitus

Submission date
05/06/2012

Recruitment status
No longer recruiting

Registration date
03/07/2012

Overall study status
Completed

Last Edited
14/07/2015

Condition category
Ear, Nose and Throat

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[_] Record updated in last year

Plain English summary of protocol

Background and study aims
In this study we will compare the effectiveness of Ginkgo biloba extract EGb 761® and a standard medication for tinnitus (Pentoxifylline) in patients suffering from tinnitus for more than 3 months with psychological and social problems caused by the tinnitus.

Who can participate?
Patients aged 40 years or older who have suffered from tinnitus for more than 3 months.

What does the study involve?
The study participants will come to the study site for four visits and in between they will be called by the investigator twice. Participants will be randomly allocated to receive either the Ginkgo extract or Pentoxifylline for 3 months. The treatment effects will be measured by a tinnitus diary. The study patients document the loudness of their tinnitus and their annoyance caused by the tinnitus every day during study participation. Additionally, at the beginning, after 6 weeks of treatment and at the end of the treatment (week 12) the patients complete three questionnaires: one about the tinnitus, one about psychological complaints like depressive moods and anxiety which can be caused by tinnitus, and a third one about their general well-being.

What are the possible benefits and risks of participating?
The benefits for the patients are a detailed tinnitus diagnostic and general examinations to exclude concurrent illnesses. The study patients receive either a standard therapy for tinnitus (Pentoxifylline), which is well established for many years in the treatment of tinnitus, or they receive an well-established herbal drug which is expected to have positive effects for example

on the blood flow in the inner ear and which is known to have positive effects on psychological complaints like depressive mood or symptoms of anxiety. There are nearly no risks for the patients caused by the examinations. The main possible side effects of the Ginkgo extract are: gastrointestinal symptoms, headache and allergic skin reactions, all usually of mild nature and quickly reversible. The main possible side effects of Pentoxifylline are gastro-intestinal symptoms, such as nausea, vomiting, sensation of fullness, gastric pressure or diarrhoea (observed frequently), agitation, sleep disturbances, dizziness, tremor, headache, fever, allergic skin reactions like itching, erythema, urticaria, disturbed vision or conjunctivitis, cardiac arrhythmia (observed occasionally), thrombocytopenia with purpura and aplastic anaemia, anaphylactic or anaphylactoid reactions such as angioedema, bronchospasm or anaphylactic shock, paraesthesia, convulsions, intracranial bleeding, pectoral angina or dyspnoea and increased blood pressure (observed very rarely).

Where is the study run from?
University Hospital Prague for Ear/Nose/Throat (ENT) diseases.

When is the study starting and how long is it expected to run for?
The study is planned to start in July 2012 and is expected to run for 18 months. The recruitment of patients is planned to be completed until end of June 2013.

Who is funding the study?
Dr Willmar Schwabe GmbH & Co. KG, Karlsruhe, Germany.

Who is the main contact?
Susanne Kraft
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Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Protocol serial number
523001.01.099

Study information

Scientific Title

Randomised, double-blind trial to compare the treatment effects of Ginkgo biloba extract EGb 761® and pentoxifylline in patients with sub-chronic and chronic tinnitus focussing on psychosocial problems

Study objectives
As no prior information from double-blind comparative clinical trials exists about the effectiveness of EGb 761® and pentoxifylline in this patient population with respect to the psycho-social problems of the patients, no formal hypotheses are formulated and the data will be analyzed descriptively.

The effectiveness of EGb 761® in comparison to pentoxifylline will be described primarily using the changes of the 11-point box scales and the changes of the Mini-TQ total score during the 12 weeks of treatment.

Ethics approval required
Old ethics approval format

Ethics approval(s)
University Hospital Kralovske Vinohradi Ethics Committee, Czech Republic [Etická Komise FNKV], 04/04/2012, ref: KH/18/0/2012

Study design
Randomised double-blind reference-controlled parallel-group single-center trial with double-dummy design

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Chronic or subchronic tinnitus

Interventions
100 patients to receive 120 mg EGb 761® twice daily (2 x 1 film-coated tablet) and 1 tablet of pentoxifylline placebo twice daily.
100 patients to receive 600 mg pentoxifylline twice daily (2 x 1 tablet) and one tablet of EGb 761® placebo twice daily.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Ginkgo biloba extract EGb 761®, Pentoxifylline

Primary outcome(s)

1. Abridged Tinnitus Questionnaire (Mini-TQ), measured at baseline (Day 0), Week 6 and Week 12 of treatment.
2. 11-Point Box Scales for tinnitus loudness and annoyance, measured with a daily diary from day -7 (screening visit) to Day 84 (final visit after 12 weeks of treatment)

Key secondary outcome(s))
Efficacy:
1. Hospital Anxiety and Depression Scale (HADS) and Sheehan Disability Scale, both measured at baseline (Day 0), Week 6 and Week 12 of treatment
2. Pure Tone and Speech Audiometry, measured at Screening (Day -7) and Week 12 (after 12 weeks of treatment)

Safety:
1. Physical examination (at screening and week 12)
2. Otological examination (at screening and week 12)
3. Vital signs (at screening and week 12)
4. ECG (at screening and week 12)
5. Adverse events (at baseline and weeks 4, 6, 8 and 12)
6. Laboratory tests (at screening and week 12)

Completion date
31/12/2013

Eligibility

Key inclusion criteria
1. Outpatients aged ≥ 40 with unilateral or bilateral, sub-chronic or chronic tinnitus (duration > 3 months)
2. Tinnitus is the main complaint, other cochlear or vestibular symptoms may be present but less annoying
3. Tinnitus is maskable with noise masking
4. Annoyance rated at least 3 on the 11-Point Box Scale of tinnitus annoyance at screening and baseline
5. Abridged Tinnitus Questionnaire (Mini-TQ) total score rated ≥ 5 at baseline
6. Written informed consent to participate in the clinical trial, to randomized treatment and to data recording in accordance with applicable laws

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria

1. Participation in another experimental drug trial at the same time or within the past 4 weeks before enrolment
2. Currently taking any treatments for tinnitus
3. Acute or chronic otitis media or vestibular neuritis
4. Drug-induced tinnitus
5. Significant cardiac or circulatory disorder
5.1. Severe (Canadian Cardiovascular Society stage IV) or unstable angina pectoris
5.2. Decompensated congestive heart failure (NYHA stage IV)
5.3. Significant coronary sclerosis or history of myocardial infarction diastolic blood pressure above 115 mmHg
5.4. Hypotension with systolic blood pressure below 110 mmHg and/or diastolic blood pressure below 70 mmHg
5.5. Clinically significant cardiac arrhythmias (Lown classes IVb and V, bifascicular bundle branch block)
6. Any acute or recent event of bleeding or history of bleeding (in particular intracerebral or retinal bleeding or bleeding from any organ), haemorrhagic diathesis, intake of anticoagulants
7. Any surgery within the last 3 months before the start of randomised treatment
8. Severe renal or hepatic dysfunction (serum creatinine or serum ASAT, ALAT or gamma-GT above three times the upper limit of the reference range)
9. Insulin-dependent or drug-dependent diabetes mellitus
10. Systemic lupus erythemathosus (SLE)
11. Intake of drugs not permitted during participation in the study, in particular anticoagulants, antidiabetic drugs, insulin, theophylline, cimetidine, psychoactive drugs, other perfusion-enhancing drugs, cognition enhancing drugs or anti-cholinergic drugs
12. Active malignant disease (exception: prostate cancer which does not require other than hormone treatment within the next 6 months)
13. Known hypersensitivity to Ginkgo biloba extract, pentoxifylline or other methylxanthine substances, or to excipients contained in the tablets
14. Active peptic ulcer disease or any gastrointestinal disease with potential impairment of the absorption of orally applied drugs (e.g., Billroth I/II, Crohn's disease, ulcerative colitis, any kind of enterectomy)
15. Female patients of childbearing potential without safe contraception (hormonal contraception, oral or transdermal, is considered sufficiently safe; childbearing potential can be denied in case of postmenopausal state for at least 2 years, hysterectomy, bilateral tubal ligation or bilateral oophorectomy)

Date of first enrolment
01/07/2012

Date of final enrolment
01/06/2013

Locations

Countries of recruitment
Czech Republic

Germany

Study participating centre
Dr. Willmar Schwabe GmbH & Co. KG
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Sponsor information

Organisation
Dr. Willmar Schwabe GmbH & Co. KG (Germany)

ROR
https://ror.org/043rrkc78

Funder(s)

Funder type
Industry

Funder Name
Dr. Willmar Schwabe GmbH & Co. KG (Germany)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes