

Study title

A randomized, double-blind, placebo-controlled dose-escalation phase I study to evaluate the safety and tolerability of inhaled aerosolized OligoG CF-5/20 (G-block oligosaccharide derived from alginate polysaccharide) in healthy volunteers.

Objectives

- Primary
 - safety and local tolerability of multiple dose administration
 - local, clinical tolerance,
 - pulmonary functioning
 - pulmonary adverse events.
- Secondary
 - physical examination,
 - vital signs including pulse oximetry,
 - ECG,
 - haematology and clinical chemistry.
 - blood samples for testing systemic absorption

Methods & materials

- 28 subjects; all healthy male volunteers
- Parallel group, prospective, randomised, double-blind, single-centre
- Timelines:
 - First Patient First Visit: 28.09.2009.
 - Last Patient Last Visit: 23.10.2009
- Hospitalisation, 24/7 monitoring for 4 days
- Design:
 1. Cohort 0; 90 mg/day as a single dose; n=4 (2 active+ 2 placebo)
 - In order to proceed into the following dose-escalation protocol (cohorts 1-3), no treatment-emergent adverse events or other unfavourable tolerability concerns was observed in this single-dose cohort.
 2. Cohort 1: 90 mg/day OD for 3 days; n=8 (6 active+ 2 placebo)
 3. Cohort 2: 270 mg/day OD for 3 days; n=8 (6 active+ 2 placebo)
 4. Cohort 3: 270 mg/day BID for 3 days; n=8 (6 active+ 2 placebo)
- IMP:
 - Active: OligoG CF-5/20
 - Placebo: Saline, 0.9% NaCl
 - Nebuliser: Sidestream Plus and Porta-neb (Phillips Respironics) aerosol delivery system.

Results

Cohort 0 (single dose)

- All 4 subjects (2 active, 2 placebo) were dosed as planned.
- No adverse events (AEs) occurred
- No clinically significant changes in
 - laboratory values
 - haematology, biochemistry, urinalysis (+microscopy)
 - vital signs
 - blood pressures, pulse, respiration rate, body temperature, SpO₂
 - ECG
 - spirometry

Results

Cohort 1 (90 mg OD for 3 days)

- All 8 subjects (6 active, 2 placebo) were dosed as planned.
- No adverse events (AEs) occurred
- No clinically significant changes in
 - laboratory values
 - haematology, biochemistry, urinalysis (+microscopy)
 - vital signs
 - blood pressures, pulse, respiration rate, body temperature, SpO₂
 - ECG
 - spirometry

Results

Cohort 2 (270 mg OD for 3 days)

- All 8 subjects (6 active, 2 placebo) were dosed as planned.
- 5 AEs reported by 3 subjects
 - # 014 (a): headache, mild (force appl'd at spirometry)
 - # 017 (a): 3 x headache, mild (stress at spirometry)
 - # 013 (p): headache, mild (caffeine restrictions)
 - All AEs were considered to be unlikely related to the study medication.
- No clinically significant changes in
 - laboratory values, vital signs, ECG, spirometry

Results

Cohort 3 (270 mg BID for 3 days)

- All 8 subjects (6 active, 2 placebo) were dosed as planned.
- 5 AEs reported by 5 subjects
 - # 023 (a): dry cough; mild, possibly rel
 - # 026 (a): dry cough, mild, probably rel
 - # 028 (a); headache, mild, possibly rel
 - # 024 (p): one transient event of incr CRP, mild, unlikely rel
 - # 022 (p): tingling, hand (hypervent 1st dose), mild, unlikely rel
 - All AEs were resolved w/o use of conc med and w/ no sequelae
- No clinically significant changes in
 - laboratory values, vital signs, ECG, spirometry

Conclusion

- OligoG CF-5/20 was well tolerated when administered
 - to 28 healthy subjects
 - for up to 270 mg/day BID
 - for 3 consecutive days.
- All adverse events were mild and transient and occurred at the same level and frequency in the placebo and active groups
- No SAEs, no deaths, no discontinuations
- No clinically significant changes in
 - laboratory values
 - haematology, biochemistry, urinalysis (+microscopy)
 - vital signs
 - blood pressures, pulse, respiration rate, body temperature, SpO₂
 - ECG
 - spirometry