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**INTRODUCTION**

CK-2017357 (CK-357), a novel skeletal muscle activator, is the fast skeletal muscle activator proven to increase maximum exercise capacity and muscle power in patients with Claudication.

**METHODS**

- Single doses of each of CK-357 375 mg, CK-357 750 mg and placebo were administered in random order with a 5 to 10 day washout between each dose. The protocol was amended after 33 patients due to adverse events to two patients at 750 mg the remainder received CK-357 500 mg instead of CK-357 750 mg
- Assessments:
  - Bilateral Heel Raise Test using electrogoniometry at 3 and 6 hours after dosing
  - 6-Minute Walk Test at 4 hours after dosing
- Results were analyzed using a repeated-measures ANOVA with treatment, visit, period, baseline, and baseline × visit in the model. The event of model assumption violations, non-parametric methods were utilized

**CLINICAL RESULTS**

**Figure 1: CK-357 Increases Force Generation and Decreases Fatigue in Rat Femoral Artery Ligation Model**

- Onset Smoking Status
- Tobacco Use (units/day)
- BMI (kg/m²)
- Race:
  - Male
  - Non Hispanic
  - Black
  - Asian

**Figure 2: Bilateral Heel Raise Test**

- The protocol was amended after 33 patients due to adverse events to two patients at 750 mg the remainder received CK-357 500 mg instead of CK-357 750 mg
- Assessments:
  - Bilateral Heel Raise Test using electrogoniometry at 3 and 6 hours after dosing
  - 6-Minute Walk Test at 4 hours after dosing

**Figure 4A: Heel Raise Test: Time to Endpoint**

**Figure 4B: Heel Raise Test: Repetitions to Endpoint**

**Figure 4C: Heel Raise Test: Work to Endpoint**

**Figure 5: PK/PD Analysis Shows Strong Relationship Between CK-357 Plasma Concentrations and Outcomes**

**Figure 6: 6-Minute Walk Test: Placebo-Corrected Change from Baseline by Dose and CK-357 Plasma Concentration**

**CONCLUSIONS**

- CK-357 increased calf muscle performance in patients with cal distribution and palpability
- When compared to placebo, single doses of CK-357 at 375 mg and 750 mg improved calf muscle performance
- **Future Studies**
  - Further studies will explore whether CK-357 has beneficial effects on clinical endpoints, particularly on walking distance and quality of life, and will compare different dosing regimens.

**Table 1: Patient Population**

**Table 2: Treatment - Emergent Adverse Events**

**Efficacy and Tolerability of the Novel Fast Skeletal Muscle Tropinin Activator, CK-2017357, in Patients with Claudication**

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