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A Phase II, randomized, double-blind, placebo-controlled, dose-finding study of survodutide (BI 456906) in people living with overweight/obesity

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Abstract

Background: Survodutide is a dual agonist that acts on GCGR (glucagon receptor), to increase energy expenditure, and the glucagon-like peptide-1 receptor, and may improve therapeutic efficacy.
Aim: This dose-finding study evaluated the efficacy and safety of survodutide in participants with overweight/obesity.
Materials and methods: In this Phase II, double-blind, placebo-controlled study, adults with BMI ≥27 kg/m2 and without diabetes were randomized 1:1:1:1:1 to weekly subcutaneous survodutide (four dose groups: 0.6, 2.4, 3.6, 4.8 mg) or placebo. The 46-week treatment period comprised a 20-week dose escalation phase (increases every 2 weeks), plus a 26-week maintenance phase (fixed dose). The primary endpoint was bodyweight change (%) from baseline at Week 46 to characterize the dose-response relationship for survodutide. A mixed model for repeated measurements was used for analysis.
Results: 387 participants were randomized; treated set, N=386; full analysis set (FAS), N=384; n≈77 per arm. Baseline demographics and clinical characteristics were similar between study arms (FAS): 68.2% female, 78.4% White, mean(SD) age 49.1(12.9) years, BMI 37.1(6.1) kg/m2, bodyweight 105.7(20.4) kg, waist circumference 113.4(14.5) cm, systolic BP 125.6(13.4) mmHg and diastolic BP 81.3(7.8) mmHg. At Week 46, survodutide yielded substantial placebo-corrected reductions from baseline in absolute bodyweight and waist circumference (greatest mean reductions with 4.8 mg survodutide; −15.8 kg and −12.1 cm, respectively) and BP (greatest mean reductions were −6.2 mmHg for systolic BP [3.6 and 4.8 mg survodutide] and −2.9 mmHg for diastolic BP [4.8 mg survodutide]).
Conclusion: Over 46 weeks, survodutide doses ≥2.4 mg substantially improved cardiometabolic outcomes in participants with overweight/obesity.