

1.17 Liraglutide-Based Weight Loss versus CPAP Therapy in improving Sleep Quality and Quality of Life of Patients with Obstructive Sleep Apnoea - an Explorative, Proof of Concept Study

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Obstructive sleep apnoea (OSA) is associated with reductions in sleep quality and quality of life indices. In this study we evaluated the effect of CPAP vs. a glucagon-like peptide (GLP)-1 (Liraglutide)-mediated weight loss strategy (LWR) on sleep and quality of life.

These are data from a randomized proof-of-concept study (clinicaltrials.gov: NCT04186494). 30 patients with moderate to severe OSA without diabetes were randomised to CPAP, LWR alone or both in combination for 24 weeks. All patients underwent full polysomnography before and after treatment, and completed the Sleep Apnoea Quality of Life Index (SAQLI), Epworth sleepiness scale (ESS) and the 36 Item Short Form Survey (SF-36).

30 subjects (50±7 years, 75% males, apnoea-hypopnoea index (AHI) 50±19/hr, body mass index (BMI) 34.8 ±3 kg/m²) completed the study. In the per protocol analysis, CPAP resulted in greater reduction in AHI vs LWR (-43±20 vs. -12±18, p = 0.004) and greater improvements in quality of life indices (p = 0.016 for differences in SAQLI outcomes). However, LWR resulted in longer total sleep time and greater sleep efficiency) . Both treatments led to improvements in ESS.

CPAP was associated with greater improvement of quality of life, while LWR resulted in improved sleep duration and efficiency.