renal function (eGFR ≥90). Demographics, except eGFR, were similar in the groups. PK-blood samples were collected over a 14-day period following a single dose of 10 mg glepaglutide and were analyzed for the parent drug and the two metabolites (M1 and M2). A constructed analyte glepaglutide$_{total}$ was used for the primary endpoint (parent + M1 + M2), using a non-compartment approach.
The primary PK parameters were area under the curve between dosing and 168 hours (AUC_{0-168}) and the maximum plasma concentration (C_{max}), which were computed for glepaglutide, M1 and M2.
Safety and tolerability were assessed.
Results: Geometric mean ratios of glepaglutide$_{total}$ for AUC_{0-168} was 0.96 [90% CI:0.69-1.35] and C_{max} was 0.90 [90% CI: 0.62-1.31]. Hence, the exposure of glepaglutide$_{total}$ was 4% and 10% lower in subjects with renal impairment compared to healthy subjects.
Glepaglutide was well tolerated with no serious adverse events reported.
Conclusion: There were no clinically relevant differences in the primary PK parameters in subjects with renal impairment compared to healthy matched subjects. This suggests that renal function is not affecting the systemic exposure of glepaglutide and therefore dose adjustment of glepaglutide in patients with renal impairment may not be warranted.
Disclosure of Interest: M. Askjær Agersnap Other: Salary - Zealand Pharma, K. Sonne Other: Salary - Zealand Pharma, K. M. Knudsen Other: Salary - Zealand Pharma, W. Sulowicz : None declared

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INCREASED SPECIES RICHNESS IN THE ORAL MICROBIOME BY A 13-WEEK PROTEIN AND COMBINED LIFESTYLE INTERVENTION IN OLDER ADULTS WITH OBESITY AND TYPE 2 DIABETES

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Rationale: While combined lifestyle interventions have multiple health benefits, their impact on the oral microbiome is not known. We explored the effects of a lifestyle intervention including protein drink on the oral microbiome in older adults with obesity and type 2 diabetes (T2D).
Methods: In a post-hoc analysis of the PROBE study, 87 subjects (66.5±6.1 years, 33% female) with tongue dorsum samples at baseline and week 13 were included. All subjects participated in a 13-week lifestyle intervention with exercise (3x/week) and hypocaloric diet (-600 kcal/day), and had been randomized to receive a test product (21g whey protein enriched with leucine and vitamin D) or isocaloric control (0g protein) 10x/week. T2D was subtyped as muscle insulin resistance (MIR, n=34) or no-MIR (n=36) based on available muscle insulin sensitivity index. Microbiome was analysed by V4 16s rDNA sequencing. Diversity, measured as species richness and Shannon diversity index, was statistically analysed with paired (within group) and independent (between groups) samples *t*-test.
Results: In the MIR subgroup, species richness (baseline 73.1±19.1, wk13 88.1±24.9; p<0.001) and Shannon diversity index (baseline 2.8±0.3, wk13 3.0±0.3; p=0.01) increased significantly over time, and change in species richness was significantly different between test (+15.0±11.5) and control (+0.7±18.2) (p=0.01). On the whole group level, diversity did not change over time and did not differ between study groups. Change in species richness significantly correlated with change in BMI (r=-0.25, p=0.02) and change in fasting glucose (r=-0.28, p=0.01).
Conclusion: Consuming a whey protein drink enriched with leucine and vitamin D during a combined lifestyle intervention increased species richness of the oral microbiome in obese T2D subjects with muscle insulin resistance.
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IDENTIFICATION OF THE BREATH-SIGNATURE OF CHITIN-GLUCAN INSOLUBLE FIBER IN HEALTHY VOLUNTEERS

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Rationale: The fermentation of dietary fiber (DF) leads to the production of bioactive metabolites, the most volatile ones being excreted in the breath. The aim of this study was to analyze the profile of exhaled breath volatile metabolites (BVM) after supplementation with the insoluble DF chitin-glucan (CG) in healthy individuals.
Methods: The first study explores the effect of an acute dose of CG (4.5 g at day 2 versus 4.5g of maltodextrin at day 0) added to a standardized breakfast in fasting healthy volunteers (n = 15) on the BVM profile (Selected ion flow tube mass spectrometry, SIFT-MS methodology) and the fecal gut microbiota composition (Illumina sequencing). The second study evaluates the same parameters after ingestion of a breakfast rich in fiber prior and after a 3-week intervention with CG as a supplement (4.5g/day) in healthy individuals (n=15).
Results: Untargeted analyses highlighted that BVM fingerprint was highly influenced by the nutritional status of the subjects. Targeted analysis revealed that 6 BVM were significantly increased after a single ingestion of CG versus maltodextrin intake, including microbial metabolites such as butyrate or 2,3-butanedione. Three weeks of CG induces specific changes in the gut microbiota composition, especially an increased relative abundance of butyrate-producing bacteria including *Eubacterium* (*q=0.008*) and *Roseburia* (*q=0.087*) genera. The chronic administration of CG decreased or delayed the expiration of most exhaled BVM in favor of H_2 expiration. Among them, eight positively correlated with the fecal presence of *Faecalibaterium*, a dominant butyrate-producing bacteria.
Conclusion: Assessing BVM after DF intake is a non-invasive methodology allowing the identification of released bioactive bacterial metabolites that can be proposed as new biomarkers of fibers fermentation, potentially linked to their biological properties.
Disclosure of Interest: None declared

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EFFECT OF DIETARY COUNSELING ON NUTRITIONAL STATUS OF CHRONIC KIDNEY DISEASE PATIENTS ON HEMODIALYSIS

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Rationale: 40-50% of end stage renal disease patients were found to be malnourished. Periodic nutrition assessment and intervention with disease-specific dietary advices can increase survival rate and slow down disease progression. Thus, this study was conducted to assess the effect of single-time dietary counseling on nutritional status of CKD patients on hemodialysis.
Methods: Single-arm Pre- and Post- Interventional study was conducted in Defense Services General Hospital, Myanmar. 41 adult CKD patients on dialysis were studied. At 1st assessment, a 3-day food diary, anthropometric measurements and Patient-Graded Subjective Global Assessment (PG-SGA) were used to assess nutritional status and individual dietary