ESPEN 2023 Late Breaking Abstracts

Topic: Nutrition and chronic disease

Abstract Submission Identifier: ESPEN23-ESPEN2022LATEBREAKINGABSTRACTS-2222

A PLANT-BASED HIGH ENERGY AND PROTEIN ENTERAL TUBE FEED IS HIGHLY TOLERATED, COMPLIED WITH AND ACCEPTED, AND DECREASES FEEDING TIME PER DAY IN HOME ENTERALLY TUBE FED PATIENTS

C. Griffen*, [1], N. Wyer [2], R. Martin [3], E. Michaels [4], Y. Dube [4], J. Bates [5], D. J. Griffith [6], H. Meanwell [7], E. Diamond [8], C. Lennon [9], L. Szymanski [10], J. Ward [11], K. Nosworthy [12], S. Morris [13], N. Hatchett [14], N. Glanville [12], R. McNaughton [15], C. Banks [11], S. Owen [16], N. Blackburn [16], A. Bidgood [5], R. Raif [3], E. Tripp [17], L. Allan [14], C. Brici [5], L. Green [3], L. Lewis [9], L. Chandler [9], C. Robinson [13], A. Lumsdon [13], H. Hitchings [17], A. Campbell [15], J. Baxter [15], S. C. Cooper [18], S. Richardson [12], M. Hardy [12], A. McCloskey [19], R. Capener [1], G. P. Hubbard [1], R. J. Stratton [1, 20]

[1]Research & Innovation, Nutricia Ltd., Trowbridge, [2]Nutrition Team, University Hospitals Coventry and Warwickshire NHS Trust, Coventry, [3]Home Enteral Tube Feeding/Community Rehabilitation Team, Brighouse Health Centre, Calderdale and Huddersfield NHS Foundation Trust, Calderdale, [4]Home Enteral Nutrition Service, Leicestershire Partnership NHS Trust, Leicester, [5]Nutrition and Dietetic Service, Harold Wood Clinic, North East London NHS Foundation Trust, London, [6] Dietetics Department, Queen Elizabeth Hospital Birmingham, University Hospitals Birmingham NHS Foundation Trust, Birmingham, [7]Nottinghamshire Home Enteral Feeding Team, Nottingham University Hospitals NHS Trust, Nottingham, [8] Home Enteral Nutrition Service, Kent Community Health NHS Foundation Trust, Kent, [9]Home Enteral Feeding Team, Dietetics, South Warwickshire NHS Foundation Trust, UK, Warwickshire, [10]West Hampshire Enteral Nutrition Service, The Romsey Hospital, Southern Health NHS Foundation Trust, Romsey, [11]Home Enteral Tube Feed Team, Northumbria Healthcare NHS Foundation Trust, Northumbria, [12]Home Enteral Feeding, Nutrition and Dietetic Services, Bishop Aukland Hospital, County Durham and Darlington NHS Foundation Trust, County Durham and Darlington, [13]Nutrition and Dietetics, University Hospital of North Tees, North Tees and Hartlepool NHS Foundation Trust, North Tees and Hartlepool, [14]Department of Nutrition and Dietetics, Royal Surrey NHS Foundation Trust, Surrey, [15]Nutrition and Dietetic Department, Perth Royal Infirmary, NHS Tayside, Perth, [16]Dietetics, Royal Derby Hospital, University Hospitals of Derby and Burton NHS Foundation Trust, Derby, [17]Home Enteral Nutrition Team, Hampshire Hospitals NHS Foundation Trust, Hampshire, [18]Department of Gastroenterology, Queen Elizabeth Hospital Birmingham, University Hospitals Birmingham NHS Foundation Trust, Birmingham, [19]Home Enteral Feeding, Kingston Hospital NHS Foundation Trust, London, [20] University of Southampton, Southampton, United Kingdom

Rationale: Plant-based (vegan suitable) high energy and protein enteral tube feeds (PBTF) available to home enterally tube fed (HETF) patients are limited. This one-arm multi-centre intervention study evaluated the effects of a PBTF.
Methods: Following a 1-day baseline, adult HETF patients (n=41; age: 51±23years; BMI: 21.5±5.0kg/m^2) received ≥500ml/day of a PBTF (2.0kcal/ml; 10g protein/100ml) either with or without added fibre (1.5g/100ml) (Nutrison PlantBased 2.0kcal HP +/- Fibre, Nutricia Ltd., UK) for a 28day intervention period. Gastrointestinal (GI) tolerance (%patients reporting no symptoms), daily compliance, prescribed daily feed volume, estimated time feeding per day, acceptability, nutrient intake and body weight were assessed at baseline and end of intervention.
Results: Compared to baseline, with the PBTF, the proportion of patients with no GI symptoms increased (63±11 vs. 70±10%, p=0.006) with no difference between feed variants (p=0.87); compliance was greater (91±17 vs. 97±16%, p =0.04); and prescribed daily feed volume (1126±503 vs. 861±354ml/d, p<0.001) and estimated time feeding per day (10.0±4.6 vs. 8.2±3.9hrs/d, p<0.001) reduced. Patients scored the PBTF highly (mean score ≥8.4/10) for all acceptability outcomes. Protein intake increased from baseline to end of intervention (1.3±0.5 vs. 1.6±0.6g/kg/d, p<0.001), and energy intake (1864±512 vs. 1950±559kcal/d) and body weight (60.2±15.3 vs. 60.6±15.5kg) were maintained (p>0.08). All mean micronutrient intakes (excluding electrolytes) met the UK reference nutrient intake (RNI) at baseline and end of intervention.
Conclusion: In adult HETF patients, a PBTF is highly tolerated, complied with and accepted, increases protein intake, and decreases prescribed daily feed volume and estimated time feeding per day.

Disclosure of Interest: C. Griffen Other: Nutricia employee, N. Wyer: None Declared, R. Martin: None Declared, E. Michaels: None Declared, Y. Dube: None Declared, J. Bates: None Declared, D. Griffith: None Declared, H. Meanwell: None Declared, E. Diamond: None Declared, C. Lennon: None Declared, L. Szymanski: None Declared, J. Ward: None Declared, K. Nosworthy: None Declared, S. Morris: None Declared, N. Hatchett: None Declared, N. Glanville: None Declared, R. McNaughton: None Declared, C. Banks: None Declared, S. Owen: None Declared, N. Blackburn: None Declared, A. Bidgood: None Declared, R. Raif: None Declared, E. Tripp: None Declared, L. Allan: None Declared, C. Brici: None Declared, L. Green: None Declared, L. Lewis: None Declared, L. Chandler: None Declared, C. Robinson: None Declared, A. Lumsdon: None Declared, H. Hitchings: None Declared, A. Campbell: None Declared, J. Baxter: None Declared, S. Cooper: None Declared, S. Richardson: None Declared, M. Hardy: None Declared, A. McCloskey: None Declared, R. Capener Other: Nutricia employee, G. Hubbard Other: Nutricia employee, R. Stratton Other: Nutricia employee

Keywords: cancer, enteral nutrition, gastrointestinal tolerance, high energy, high protein, plant-based