

FORTISIP PLANTBASED 2KCAL CASE STUDY

In a Community Patient with Multiple Sclerosis

Chloe Howell

Registered Dietitian

Norfolk Community Health and Care NHS Trust

BACKGROUND AND NUTRITIONAL ASSESSMENT

This patient was referred to dietetics by her GP for nutrition support advice due to low body mass index (BMI). She was a 62-year-old retired female living independently in her own home with her partner. She has a primary diagnosis of Multiple Sclerosis (MS), a chronic neurological condition affecting the central nervous system.

Her concerns were that her low muscle mass was contributing to her unsteadiness, increasing her risk of falls. She was also worried about her bone health, following a recently sustained

rib fracture. This was heightened by her awareness that observational studies have shown people with MS have lower bone mineral density and more frequent vitamin D deficiency than the general population. She maintains an active lifestyle, engaging in light exercise and activities that involve standing work.

Her weight was 40.5kg, with a BMI of 15.1kg/m² and MUST (Malnutrition Universal Screening Tool) score of 2, which is high risk. Her goals focused on maintaining mobility, function, and independence within her daily activities.

The patient chooses to follow a plant-based diet, motivated primarily by sustainability and environmental factors.

Clinically she was stable with no dysphagia and minimal medical intervention. She had some issues with her bowel function related to her MS and was waiting for a DEXA scan to assess bone health.

INTERVENTION: FORTISIP PLANTBASED 2KCAL

At her previous appointment, she had been advised to increase her calorie, protein, and calcium intake with dietary changes. This included fortifying plant-based meals, adding high-protein snacks, and incorporating suitable dairy-free alternatives. She also trialled a powder style vegan oral nutritional supplement (ONS), as it was felt that due to her symptoms of early satiety, she would find it difficult to meet her requirements with dietary measures alone. She gained 1.5 kg with first-line advice and ONS but disliked the powdery texture and sweet taste, so she did not want to continue using them. Additionally, she was still not meeting her estimated requirements for energy or protein (see Table 1).

The dietetic aim was to promote further weight gain and sustain compliance with ONS. The patient was keen to try Fortisip PlantBased 2kcal, predominantly due to the savoury option (pea and mint flavour) whilst still meeting her plant-based dietary preferences. From a dietetic perspective the higher calorie (2kcal/ml) and protein content (20g/bottle, 20% energy from protein) was favourable. She was prescribed one 200ml bottle per day, which also provided 100% of vitamin D requirements (10µg).





OUTCOME

Table 1. Nutrient Requirements vs Intake at Baseline and Day 29

| | Estimated requirements | Baseline intake without ONS | Baseline intake with ONS | Day 29 intake without ONS | Day 29 intake with ONS |
|--------------------|------------------------|-----------------------------|--------------------------|---------------------------|------------------------|
| Energy (kcal/day) | 1818* | 1094 | 1394 | 1107 | 1507 |
| Protein (g/day) | 61 | 29.6 | 40.6 | 35.6 | 55.6 |
| Protein (g/kg/day) | 1.5 | 0.7 | 1 | 0.8 | 1.3 |

*25kcal/kg x PAL 1.4 + 400kcal for weight gain

Following the 4-week trial, the patient was pleased to have gained an additional 2kg. She was 100% compliant with the study product, which she was taking warmed with black pepper, as a nutrient dense snack between meals. The change to Fortisip PlantBased 2kcal increased her nutritional intake by >100 kcal per day and raised her protein intake from 1 g/kg to 1.3 g/kg. There were no adverse gastrointestinal symptoms or change in bowel function, which remained variable secondary to MS.

There were no changes to clinical status and she was awaiting the outcome of the DEXA scan which had been performed during this period. As she preferred the flavour and texture of Fortisip PlantBased 2kcal compared with the powdered vegan ONS she had previously trialled, she felt confident to continue it for another month.

CONCLUSION

There is no evidence to support special diets or specific supplementation for people with MS¹². A healthy balanced diet is recommended to maintain a healthy weight, support regular bowel habits, preserve skin integrity, improve muscle strength, optimise bone health and help to manage fatigue.

In this case, the patient was unable to meet their nutritional requirements through diet alone, despite targeted dietary strategies. As a result, oral nutritional supplements were introduced. The patient tolerated the Fortisip PlantBased 2kcal well, gained weight and increased her calorie and protein intake over the study period; demonstrating good acceptability and successful achievement of the dietetic goals.

