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ESPEN abstract 1

Nutritional support in chronic obstructive pulmonary disease (COPD): a randomised trial. By P.F. COLLINS^{1,2,3}, R.J. STRATTON¹, and M. ELIA¹.

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Rationale: Nutritional support is effective in managing malnutrition in COPD (Collins et al., 2012) leading to functional improvements (Collins et al., 2013). However, comparative trials of first line interventions are lacking. This randomised trial compared the effectiveness of individualised dietary advice by a dietitian (DA) versus oral nutritional supplements (ONS). **Methods:** A target sample of 200 stable COPD outpatients at risk of malnutrition ('MUST'; medium + high risk) were randomised to either a 12-week intervention of oral nutritional supplements (ONS: ~400 kcal/d, ~40 g/d protein) or DA with supportive written advice. The primary outcome was quality of life (QoL) measured using St George's Respiratory Questionnaire with secondary outcomes including handgrip strength, body weight and nutritional intake. Both the change from baseline and the difference between groups was analysed for each outcome using SPSS version 20. **Results:** 84 outpatients were recruited (ONS: 41 vs. DA: 43), 72 completed the intervention (ONS: 33 vs. DA: 39). Mean BMI was 18.2 SD 1.6 kg/m², age 72.6 SD 10 years, FEV1% predicted 36 SD 15% (severe COPD). In comparison to the DA group, the ONS group experienced significantly greater improvements in protein intakes above baseline values at both week 6 (+21.0 SEM 4.3 g/d vs. +0.52 SEM 4.3 g/d; p < 0.001, ANOVA) and week 12 (+19.0 SEM 5.0 g/d vs. +1.0 SEM 3.6 g/d; p = 0.033 ANOVA). QoL and other secondary outcomes remained stable at 12 weeks in both groups with slight improvements over time in the ONS group but no differences between groups. **Conclusion:** In outpatients at risk of malnutrition with severe COPD, nutritional support involving either ONS or DA appears to maintain nutritional status, functional capacity and quality of life. However, larger trials, and earlier, multi-modal nutritional interventions for an extended duration should be explored. **References:** Collins et al., (2012) Am. J. Clin. Nutr 95 (6), 1385-1395; Collins et al., (2013) Respirology 18 (4), 616-629.

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