A randomised controlled trial of a behavioural nutrition education programme “Eat Well with CF” for adults with CF

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Introduction: A meta analysis examining methods for weight gain in CF recommended a randomised controlled trial of a nutrition education and behavioural intervention. A home-based behavioural nutrition education programme was developed for adults, entitled “Eat well with CF”. This was peer reviewed, patient acceptability tested and a pilot study completed.

Methods: Participants were randomised to the intervention group (n=37), who completed the 10-week “Eat Well with CF” programme, or the control group (standard dietary care n=37). The primary outcome measure was weight change over 6 and 12 months; secondary outcome measures included gains in nutrition knowledge, self-efficacy and increased dietary fat intake.

Results: After 6 months the average weight gain in the intervention group was 0.57 kg (sd 2.4) compared to control weight gain of 0.09 kg (sd 3.6), (p = 0.628). Subjects undertaking the “Eat well with CF” Programme had significantly increased their self-efficacy (p = 0.003), their specific nutritional knowledge (p < 0.001) and their reported dietary fat intake (p = 0.014) compared to the control group. At 12 months, the average weight gain was 0.02 kg in the control group and 1.14 kg in the intervention group with no statistical differences between the two groups. The intervention group continued to show a marked and significant improvement in CF specific nutritional knowledge and self-efficacy score.

Conclusion: Patients completing the new home based behavioural nutrition education programme significantly improved specific nutrition knowledge and self-efficacy at 6 and 12 months and reported fat intake at 6 months. The study suggests this novel approach to nutrition education is effective.

Sun exposure, rather than oral supplements, determines Vitamin D serum levels (VDSL) in cystic fibrosis (CF)

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Aim: In CF VDSL can vary widely over the year and the effect of oral supplements is disappointing. This study aims to clarify the relative importance of VDSL sources.

Method: Over 4 consecutive years (2001–05) 474 annual VDSL of 137 CF patients (M age 15.6 y; range 0–42 y.) were compared.

Results: Ranked per month VDSL each year design a S-shaped curve, convex from June to October (Sunny period) and concave from November to May (Dark period), significantly higher according to the amount of sun hours in the preceding months. Means of 5 medians of the 4 years (26.6 ng/ml) differ from D (17.3 ng/ml) (p = 0.001). These results are not significantly different from normal controls and were found both in pancreatic insufficient as sufficient patients although the latter group was to small (n=11) to reach statistical significance. Oral Vit D supplementation, even impulses of up to 50 000 IU/wk for 12 wks, did not influence VDSL. Values mirrored preceding sunshine duration.

Conclusion: This study of VDSL found normal values in CF, significantly different between the sunny and darker period of the year. Individual VDSL should therefore be compared to normal values in these distinct periods. VDSL are found to be concordant with sun exposure, not with oral supplements. Exposure to sunlight should thus maximally be encouraged while the need for oral supplements can be questioned.