

primary studies - published, non RCT

## **PTH-145 Comparison Of Percutaneous Endoscopic Gastrostomy, Megestrol Acetate And Nasogastric Feeding In Patients With Cystic Fibrosis.**

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### **Study design (if review, criteria of inclusion for studies)**

Retrospective study.

### **Participants**

CF patients attending the Manchester Adult Cystic Fibrosis Centre (MACFC) between June 1998 and June 2012 including all living patients on any of the interventions. 53 patients fulfilled criteria at 6 months: 18 MA, 14 NG and 21 PEG.

### **Interventions**

3 interventions to prevent weight loss at 6 and 12 months: i) Percutaneous Endoscopic Gastrostomy (PEG), ii) oral steroid therapy (megestrol acetate- MA) or iii) nasogastric (NG) tube feeding.

### **Outcome measures**

Changes in weight and FEV1

### **Main results**

There were significant increases in weight from post-intervention time 0 for MA (mean 3.0 kg, 95% CI: 1.16, 4.85) and NG (mean 2.9 kg, 95% CI: 0.84, 4.97), but not for PEG (mean 1.0 kg, 95% CI: 0.64, 2.73). There were no significant changes in FEV1 from time 0 for any of the 3 interventions at 6 months; although the ratio of change in FEV1 (6 months:time 0) showed small reductions for all 3 interventions; MA (ratio 0.987, 95% CI: 0.882, 1.104), NG (ratio 0.996, 95% CI: 0.876, 1.133) and PEG (ratio 0.925, 95% CI: 0.836, 1.024). 50 patients fulfilled criteria at 12 months: 16 MA, 13 NG and 21 PEG. There were significant increases in weight from time 0 for MA (mean 2.6 kg, 95% CI: 0.38, 4.78), NG (mean 3.2 kg, 95% CI: 0.73, 5.67) and PEG (mean 2.5 kg, 95% CI: 0.60, 4.46). There were no significant changes in FEV1 over 12 months for any of the 3 interventions although the ratio of change in FEV1 (12 months:time 0) showed small changes for MA (ratio 1.030, 95% CI: 0.923, 1.150), NG (ratio 0.957, 95% CI: 0.840, 1.092) and PEG (ratio 1.041, 95% CI: 0.944, 1.147).

### **Authors' conclusions**

All 3 interventions appear to be equally effective means of improving nutritional status as measured by weight gain, and possibly stabilise lung function. Our study is the first which to compare these 3 different interventions but is limited by the small sample size and lack of a control group. Robust prospective studies comparing interventions to improve nutritional status in these patients are required.

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### **See also**

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### **Keywords**

non pharmacological intervention - surg; Adolescent; Appetite Stimulants; Caloric Intake; Child; Hormones; Infant; megestrol; non pharmacological intervention - diet; Nutrition Disorders; pharmacological\_intervention; placebo; Supplementation; Malnutrition; Continuous; Enteral Nutrition; Percutaneous Endoscopic Gastrostomy (PEG);