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An audit on the use of exclusive liquid diets in Crohn’s disease at the Royal London Hospital

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The efficacy of exclusive liquid diets (ELD) has been demonstrated extensively in clinical trials to induce remission in active Crohn’s disease^(1,2).

A prospective audit was carried out on all adult patients referred for an ELD at The Royal London Hospital between 1 September 2009 and 31 March 2010. Primary outcomes were to (1) determine the effectiveness of ELD measured using Harvey Bradshaw Index (HBI), (2) determine the effect of ELD on nutritional status measured by changes in weight and BMI and (3) determine the level of compliance to the ELD measured by prescribed *v.* consumed ELD and actual end date of ELD *v.* target end date.

Sixteen referrals were received during the audit period. Eleven out of 16 (69%) attempted the liquid diet, 5 declined. One of the 11 patients was lost to follow-up and is therefore excluded. There were difficulties obtaining full data sets for all patients.

There was a trend towards improved HBI and improved nutritional status when following an ELD and this trend was stronger when compliance was high. There was only a trend of improved nutritional status when compliance was high but this was not significant.

Table 1. Clinical changes following an ELD

| | HBI at start of ELD (n 10) | HBI on stopping ELD (n 10) | CRP at start of ELD (n 7) | CRP on stopping ELD (n 7)* | Weight at start of ELD (n 6) | Weight on stopping ELD (n 6)** | BMI at start of ELD (n 5) | BMI on stopping ELD (n 5)*** |
|---------|----------------------------|----------------------------|---------------------------|----------------------------|------------------------------|--------------------------------|---------------------------|------------------------------|
| Mean | 7.00 | 4.90 | 37.43 | 24.86 | 55.12 | 56.17 | 20.10 | 20.76 |
| SD | 2.11 | 2.77 | 30.21 | 31.06 | 16.39 | 16.51 | 4.31 | 3.41 |
| P-value | 0.09 | 0.17 | 0.35 | 0.18 | | | | |

*Data unobtainable in 3 patients. **Data unobtainable in 4 patients. ***Data unobtainable in 5 patients.

Five patients demonstrated high compliance determined by following the ELD for the entire recommended period and consuming an average of 96.8% of their supplement prescription over this period. In this group, there was a reduction in mean HBI of 4.2, which was statistically significant ($P = 0.028$). Five patients stopped the ELD before their target date and cited ongoing symptoms and inability to tolerate prescribed volume as the main reasons. This group consumed only 35% of their supplement prescription and there was no change in their HBI.

This audit supports the evidence that ELD can be an effective treatment for active Crohn’s disease, but only if patients are compliant. Dietitians play a key role in optimising compliance and are therefore an important part of the multidisciplinary team. More focus needs to be placed on achieving high compliance and more effective strategies developed by dietitians working in this area.

1. King T, Woolner J & Hunter J (1997) *Aliment Pharmacol Ther* **11**, 17–31.
2. Goh J & O’Morian C (2003) *Aliment Pharmacol Ther* **17**, 307–320.