whether patients reported to have fatty liver on USS, irrespective of clinical indication, were adequately assessed by testing of liver function tests (LFTs) and if abnormal, subsequently referred to a specialist clinic.

Methods A single centre, retrospective analysis of all patients who underwent USS over a 5-month period (January—May 2011) at Chase Farm Hospital was performed. Patients who had LFTs within 8 weeks of USS were said to have had their LFTs checked appropriately. Data were obtained from radiology reports via PACS/EPR reporting systems.

Results 258 patients were investigated over the audit period. 69 (26.7%) patients (42 male, 27 female), median age 58 years (25–91 years) were reported to have fatty liver on ultrasound. 52 (75.5%) of these patients had their LFTs checked of which 57 (71.2%) were abnormal. 12 (17.3%) patients with fatty liver on ultrasound were formally seen in a specialist clinic. Over half of patients (27, 51.9%) with fatty liver and abnormal LFTs were never seen in a specialist clinic.

Conclusion A quarter of patients with USS diagnosis of fatty liver did not have their LFTs checked potentially missing an opportunity to monitor for complications of NAFLD. While only the tip of the iceberg of NAFLD patients are referred to secondary care, a large portion of the iceberg goes unnoticed even on surfacing. An iceberg of NAFLD patients are referred to secondary care, a large proportion of patients (27, 51.9%) with fatty liver and abnormal LFTs were never seen in a specialist clinic.

Low glycaemic index dietary intervention for patients with non-alcoholic fatty liver disease in the general population—a randomised controlled trial

doi:10.1136/gutjnl-2012-302514d.293

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Introduction Low glycaemic index diet improves insulin sensitivity and adiposity. Its effect on non-alcoholic fatty liver disease (NAFLD) is unclear.

Methods This was a single-blind, randomised controlled trial of NAFLD patients aged 18–70 years who were recruited through population screening. All patients were instructed to exercise around 90 min/week, and were randomised to participate in a low glycaemic index dietary intervention programme or receive usual care. The dietary intervention programme was led by dietitians and consisted of education on food components, interpretation of food labels, food exchanges, healthy eating out techniques and cooking methods. The primary endpoint was the proportion of patients with resolution of NAFLD at month 12, defined as intrahepatic triglyceride content (IHTG) <5% by proton–magnetic resonance spectroscopy.

Results At the time of analysis, 104 patients (51 in the intervention group and 53 in the control group) had completed month 12 assessment. The adherence to the intervention programme was excellent, with attendance over 80%. Resolution of NAFLD occurred in 55 (69%) patients in the intervention group and 11 (21%) in the control group (p=0.001). IHTG decreased from 11.7±6.2% to 4.8±4.6% in the intervention group but remained static from 11.7±6.9% to 9.7±6.7% in the control group (mean difference in IHTG change 4.9%, 95% CI 2.6% to 7.1%). Reduced body mass index (BMI) was observed in the intervention group first at month 3 and maintained through month 12. At month 12, BMI decreased by 9.2±7.8% from baseline in the intervention group, compared to 1.1±5.5% in the control group (p<0.001). By multivariate analysis, dietary intervention (OR 4.2; 95% CI 1.1 to 15.4), baseline IHTG (OR 0.82; 95% CI 0.72 to 0.95) and percentage change in BMI (OR 0.78; 95% CI 0.68 to 0.89) were independent factors associated with NAFLD resolution.

Conclusion Low glycaemic index dietary intervention is effective in reducing liver fat in NAFLD patients in the general population. This was a single-blind, randomised controlled trial of NAFLD at month 12, defined as resolution of NAFLD. The primary endpoint was the proportion of patients with resolution of NAFLD (P<0.05). The secondary endpoints were the proportion of patients with improvement of liver enzymes, resolution of liver ultrasound features, and reduction in visceral fat (P<0.05). The intervention group had a significantly lower IHTG (6.9% to 4.6% in the intervention group but remained static from 6.2% to 6.2% in the control group (p<0.001). IHTG decreased from 11.7±6.2% to 4.8±4.6% in the intervention group but remained static from 11.7±6.9% to 9.7±6.7% in the control group (mean difference in IHTG change 4.9%, 95% CI 2.6% to 7.1%). Reduced body mass index (BMI) was observed in the intervention group first at month 3 and maintained through month 12. At month 12, BMI decreased by 9.2±7.8% from baseline in the intervention group, compared to 1.1±5.5% in the control group (p<0.001). By multivariate analysis, dietary intervention (OR 4.2; 95% CI 1.1 to 15.4), baseline IHTG (OR 0.82; 95% CI 0.72 to 0.95) and percentage change in BMI (OR 0.78; 95% CI 0.68 to 0.89) were independent factors associated with NAFLD resolution.

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