393 ABNORMAL LIVER FUNCTION TESTS AND DIABETES MELLITUS: A PREVALENCE STUDY

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Introduction: Chronic liver disease (CLD) is a major cause of morbidity and mortality in the UK. Up to 75% of people with type 2 diabetes have a degree of non-alcoholic fatty liver disease (NAFLD) at diagnosis.[1] Recent studies have shown that the risk of CLD and hepatocellular carcinoma is significantly increased in patients with diabetes.[2, 3] Diabetics are also at risk of other disorders associated with abnormal liver function tests (LFTs). Currently the diabetes annual review does not involve assessing liver disease risk.

Aims & Methods: This study aimed to determine the prevalence of abnormal LFTs in the population attending diabetic clinic in the secondary care setting of a large rural university hospital. Demographics, LFTs, HbA1C, lipid levels and body mass index (BMI) were recorded for all patients attending the hospital diabetic clinic between 1/9/05 and 31/12/05. Data were collected retrospectively from hospital records.

Results: During the study period 910 diabetics attended the clinic. 49% had type 1 and 51% had type 2 diabetes. In 55 (6%) patients both ALT and GGT were raised above the normal range. In 181 (19.9%) patients ALT, GGT or both were elevated (Group 1). This group was compared to patients with normal ALT and GGT (Group 2). Group 1 patients had significantly higher BMI and a more adverse lipid profile. The proportion of type II diabetics was also significantly higher in Group 1 (43.6% *v* 39.7%, $p<0.05$). Subgroup analysis of the type II diabetics showed that the lipid profile was the only significant variable between the groups.

Conclusion: This study shows that 20% of patients with diabetes and 22% of type 2 diabetics had a raised ALT, GGT or both. This is higher than has been previously reported in the literature. Most of these patients have not had a formal hepatological assessment. Further work is needed to identify which patients are at risk of serious liver disease and need further hepatological evaluation. The resource implications to the NHS are likely to be considerable.

1. **Medina J**, Fernandez-Salazar LI, Garcia-Buey L, *et al.* Approach to the pathogenesis and treatment of nonalcoholic steatohepatitis. *Diabetes Care* 2004;**27**:2057–66.
2. **De Marco R**, Locatelli F, Zoppini G, *et al.* Cause-specific mortality in type 2 diabetes. The Verona Diabetes Study. *Diabetes Care* 1999;**22**:756–61.
3. **El-serag HB**, Tran T, Everhart JE. Diabetes increases the risk of chronic liver disease and hepatocellular carcinoma. *Gastroenterology* 2004;**126**:460–8.

Abstract 393 All patients

	Group 1	Group 2	p Value
n (%)	181 (19.93)	727 (80.10)	
Age (mean (SD))	56.96 (16.11)	56.67 (17.5)	
BMI	31.14	29.16	<0.05
HbA1c	8.66	8.44	NS
TC/HDL	3.97	3.39	<0.05