Gastrointestinal disease

High rates of steatosis detected in young adults

One in five young people have steatosis, one in ten severe steatosis, and one in forty liver fibrosis, a recent UK study has found.

A total of 10,018 participants in the birth cohort of the Avon Longitudinal Study of Parents and Children (ALSPAC) were invited to take part in the study. ALSPAC is a prospective birth cohort study of children born in the Bristol area during 1991 and 1992. Of those invited, 4,021 (1,507 men), mean age 24 (23–25 years), entered the study.

Liver fibrosis was assessed by transient elastography. Blood samples were taken for liver function, lipid profile and blood glucose testing. BMI was calculated. Smoking was self-reported and level of alcohol consumption was assessed by questionnaire.

There was a positive association between BMI and increasing severity of steatosis ($P < 0.0001$), participants had a median BMI in the overweight range (25 to < 30 kg/m^2) with grades S1 and S2 steatosis and median BMI in the obese range (≥ 30 kg/m^2) for those with S3. As steatosis grade increased, the proportion of participants with obesity increased to 56.2% in participants with S3 grade steatosis ($P < 0.0001$).

A total of 489 (13.0%) of 3,768 participants showed evidence of harmful alcohol consumption, 99 (20.2%) of whom had steatosis.

On unadjusted analysis, no evidence was found for an increased risk of steatosis with harmful alcohol intake. However, individuals with alcohol use disorder and steatosis had an increased risk of fibrosis when adjusted for smoking and social class; odds ratio (OR) 4.02 (95% CI: 1.24-13.02; P = 0.02).

The rise in the prevalence of non-alcoholic fatty liver disease (NAFLD) reflects increasing levels of obesity and metabolic syndrome, and young adults with NAFLD have been said to represent the next major public health challenge for health services.[1]

This study provides evidence that the obesity epidemic in the UK is affecting the future health of young adults, by increasing their future risk of non-alcoholic steatohepatitis (NASH)-related cirrhosis and potentially hepatocellular carcinoma.

'Half of our participants with steatosis had S3 steatosis which theoretically has the greatest association with the risk of NASH, compared with lower grades of steatosis,' the study authors point out.

'We identified participants in our cohort with NAFLD-related fibrosis, but the strongest association with increased severity of fibrosis was found in participants with harmful alcohol consumption and hepatic steatosis,' they add.

NAFLD and NASH are preventable and are reversible, and crucially, these negative outcomes can be avoided with public health measures, starting with measures to increase awareness of NAFLD among the general population and support for those who are overweight or obese to lose weight.

Strategies to reduce harmful drinking in those with NAFLD may help reduce progression to fibrosis.

DR JEZ THOMPSON

Abeysekera KWM, Fernandes GS, Hammerton G et al. Prevalence of steatosis and fibrosis in young adults in the UK: a population-based study. *Lancet Gastroenterol Hepatol* 2020 Published Online January 15, 2020 https://doi.org/10.1016/ S2468-1253(19)30419-4

REFERENCE

1 Doycheva I, Watt KD, Alkhouri N. Nonalcoholic fatty liver disease in adolescents and young adults: the next frontier in the epidemic. *Hepatology* 2017;65:2100-09