

Poster

Sat. Sep 27, 2025 3:00 PM - 4:10 PM JST | Sat. Sep 27, 2025 6:00 AM - 7:10 AM UTC Poster Session (Foyer 2)

**Poster 24****[P-24-01] Metabolic dysfunction-associated steatotic liver disease and risk of depression in young adults: A nationwide population-based cohort study**

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The prevalence of both steatotic liver disease (SLD) and depression is rising rapidly among young adults. This study aimed to evaluate the long-term risk of developing depression based on newly defined SLD subtypes, including metabolic dysfunction-associated steatotic liver disease (MASLD), and to assess the impact of alcohol consumption. We analyzed data from 6,226,824 young adults aged 20–39 years who underwent health screenings between 2009 and 2012, using the Korean National Health Insurance Service database. SLD was defined by a fatty liver index of 30 or higher and classified into five subtypes: MASLD, MASLD with increased alcohol intake (MetALD), alcohol-related liver disease (ALD) with cardiometabolic risk factors, MASLD with other combined etiology, and non-MASLD. Depression was identified using ICD-10 codes F32–33 over a median follow-up period of 10.4 years. All SLD subtypes were associated with an increased risk of depression compared to individuals without SLD. The highest hazard ratio (HR) was seen in MASLD with other combined etiology (HR 1.48), followed by ALD (HR 1.34), MetALD (HR 1.14), and MASLD (HR 1.03). Heavy alcohol use significantly raised depression risk regardless of cardiometabolic status, while mild alcohol consumption showed a protective effect, forming a J-shaped association. Stratified analyses revealed that females and individuals under 30 years had a higher susceptibility to depression in the presence of SLD. In conclusion, newly defined SLD subtypes carry varying risks for developing depression in young adults. These findings improve understanding of the role of alcohol, metabolic health, and liver disease etiology in mental health outcomes. The results highlight the importance of integrated screening and early mental health interventions for individuals with SLD, especially among high-risk subgroups.