Abstract IDDF2021-ABS-0212 Figure 1

Clinical Hepatology

IDDF2021-ABS-0008

IS FATTY LIVER ASSOCIATED WITH DEPRESSION? A META-ANALYSIS AND SYSTEMATIC REVIEW ON PREVALENCE, RISK FACTORS AND OUTCOMES OF DEPRESSION AND NON-ALCOHOLIC FATTY LIVER DISEASE

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Background Non-alcoholic Fatty Liver Disease (NAFLD) has a high global prevalence and this is projected to increase

further. Similarly, the prevalence of depression is on the rise, along with it is the increase of various comorbidities. While studies exploring the association have been done, there are conflicting data. This meta-analysis and systematic review

Abstract IDDF2021-ABS-0008 Figure 1

NAFLD/NASH and Depression

Abstract IDDF2021-ABS-0008 Figure 2

aimed to assess the association between depression and NAFLD.

Methods A search of the literature was conducted on Medline and Embase databases to identify articles relating to NAFLD and depression. A meta-analysis of proportions was conducted using the generalized linear mix model with Copper Pearson intervals to stabilize the variance. Risk factors were analyzed using the odds ratios and mean difference for dichotomous and continuous variables respectively. To compare between the rate of depression between NAFLD (non-alcoholic fatty liver disease) and NASH (nonalcoholic steatohepatitis), the relative risks (RR) were calculated using the depression in NASH vs NAFLD as the ratio of the pooled proportion and confidence interval by the Katz-logarithmic method.

Results Of 1315 unique abstracts identified, 10 articles involving 2,041,752 NAFLD patients were included (IDDF2021-ABS-0008 Figure 1. Overall Prevalence of Depression in NAFLD). In a pooled analysis of studies, there was a significant relationship between the diagnosis of depression and NAFLD (OR: 1.29, CI: 1.02 - 1.64, $p=0.03$). The overall pooled prevalence of depression in NAFLD was 14.39% (CI: 8.89% - 22.45%). The prevalence of depression in nonalcoholic steatohepatitis (NASH) is 40.68% (CI: 25.11% - 58.37%), significantly higher than that in NAFLD at 14.39% (CI: 8.89% - 22.45%). Compared to NAFLD, patients with NASH had a significantly higher risk of depression (RR: 2.83, CI: 2.41 - 3.32, $p < 0.001$). Diabetes, BMI, female sex, history of smoking and history of lung disease were significant risk factors associated with depression in NAFLD patients and depression in NAFLD patients was an independent predictor of all-cause 1-year mortality.

Conclusions To our knowledge, this is the first meta-analysis to describe a positive association between NAFLD and

depression with an increasing rate of depression in NASH compared to NAFLD (IDDF2021-ABS-0008 Figure 2. Graphical Depiction of the Overall Results). However, more studies are required to observe the impact of depression and clinical outcomes in NAFLD.

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A META-ANALYSIS AND META-REGRESSION BETWEEN LIVER RESECTION AND LIVER TRANSPLANT WITHIN MILIAN CRITERIA

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Background Hepatocellular carcinoma (HCC) is the dominant form of primary liver cancer and a leading cause of cancer globally. Liver transplantation (LT) confers excellent long-term survival outcomes, but its effectiveness is hampered by the dire shortage of liver allografts. Liver resection (LR) is a promising alternative due to favorable outcomes long-term outcomes. We sought to conduct a meta-analysis to compare the survival outcomes between LT and LR for HCC within the Milan criteria.

Methods Medline and Embase databases were searched for studies comparing survival data after LT and LR for patients with HCC within the MC. A meta-analysis of hazard ratios (HR) was conducted using the DerSimonian and Laird random-effects model to compare the overall survival (OS) and disease-free survival (DFS) between LR and LT for HCC.