Digestive Disease Week (DDW 2026)

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Chicago, IL

SCIENTIFIC SESSION HIGHLIGHTS

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MASLD/MASH/UDCA

PPI Therapy

GLP-1/SGLT2-Mediated Hepatoprotection

MASLD/MASH/UDCA

1. Non-Invasive Strategies to Identify Moderate–Severe Fibrosis While Excluding Cirrhosis in MASH Patients Eligible for Therapy

Background :

- With new therapies approved for Metabolic Dysfunction-Associated Steatohepatitis (MASH) patients with F2–F3 fibrosis, there is a need for noninvasive tests that accurately identify treatment-eligible patients while excluding cirrhosis (F4).

Methods:

- FIBROSpect® MASH, a proprietary blood-based test using Tissue Inhibitors of Metalloproteinases-1 (TIMP-1), hyaluronic acid, and alpha 2-macroglobulin, hyaluronic acid, and α2-macroglobulin, was evaluated in training and validation cohorts to identify F2–F3 fibrosis and rule out F4. Diagnostic performance was assessed using Area under the curve (AUC), sensitivity, specificity, and likelihood ratios.

Results:

- In the validation cohort, the test showed good accuracy for identifying F2–F3 fibrosis (AUC 0.794) and excluding F4 fibrosis (AUC 0.904). An index >13 detected F2–F3 with 66% sensitivity and 77% specificity, while an index >76 identified F4 with 61% sensitivity and 94% specificity. A treatment-eligible range of 13–76 effectively identified F2–F3 while maintaining a low probability of F4.

Conclusions:

> **FIBROSpect® MASH enables accurate noninvasive fibrosis staging and helps identify treatment-eligible MASH patients with F2–F3 fibrosis while excluding cirrhosis, supporting clinical decision-making and treatment monitoring.**

2. GLP-1 Receptor Agonists Reduce Cirrhosis Risk and Liver-Related Complications in Patients with MASH

Background :

- MASH is a major cause of cirrhosis and liver-related complications. The impact of Glucagon-like peptide-1 Receptor (GLP-1) Agonists receptor agonists on progression to decompensated cirrhosis remains unclear.

Methods:

- Retrospective TriNetX database study (2000–2025) including 54,368 patients with MASH. Patients were compared based on GLP-1 therapy initiation after diagnosis; **semaglutide was the most commonly used agent (60%).** Adjusted Cox regression assessed the risk of decompensated cirrhosis.

Results:

- 8,650 (18.9%) received GLP-1 therapy.
- GLP-1 users were more likely to be female and have obesity, hypertension, hyperlipidemia, and diabetes

- GLP-1 users had lower rates of decompensated cirrhosis (11.3% vs. 16.3%).
- GLP-1 use was associated with a 49% lower risk of decompensated cirrhosis.

Conclusions:

> **GLP-1 initiation after MASH diagnosis was associated with a significantly reduced risk of decompensated cirrhosis, supporting a potential therapeutic role in slowing disease progression.**

3. Influence of Statin Therapy on the Real-World Effectiveness of Semaglutide in MASLD/MASH

Background :

- Semaglutide is approved for MASH treatment, but treatment response may vary. Statins possess anti-inflammatory and antifibrotic properties that may enhance liver-related outcomes in patients receiving semaglutide.

Methods:

- Adults with MASLD/MASH treated with semaglutide, comparing semaglutide plus statins versus semaglutide alone. Outcomes included cirrhosis, hepatic encephalopathy, liver transplantation (LT), hepatocellular carcinoma (HCC), and all-cause mortality at 3 and 5 years.

Results:

- After matching, **14,741 patients** were included in each group. Concurrent statin therapy was associated with significantly lower risks of **cirrhosis (HR 0.81), LT (HR 0.52), HCC (HR 0.63),** and **all-cause mortality (HR 0.75)** at 3 years. These benefits persisted at 5 years with similar reductions in cirrhosis, LT, HCC, and mortality. No significant difference was observed for HE.

Conclusions:

> **Among patients with MASLD/MASH treated with semaglutide, concurrent statin therapy was associated with lower risks of cirrhosis progression, liver transplantation, HCC, and mortality, suggesting a potential synergistic benefit of combining semaglutide with statins.**

4. Fracture Risk According to UDCA Response in Patients with Primary Biliary Cholangitis

Background :

- Patients with primary biliary cholangitis (PBC) have an increased risk of osteoporosis and fractures. The impact of UDCA (Ursodeoxycholic Acid) response on fracture risk despite osteoporosis treatment remains unclear.

Methods:

- Retrospective multicenter cohort study of women ≥65 years with PBC receiving osteoporosis treatment for ≥1 year. Patients were classified as UDCA responders or non-responders (Paris-1 criteria), and fracture risk was evaluated using survival analyses.

Results:

- Among patients, **80% were UDCA responders and 20% were non-responders.**
- **UDCA responders had a significantly lower fracture risk** compared with non-responders despite receiving similar osteoporosis treatments.
- During 10 years of follow-up, **UDCA responders experienced a lower cumulative incidence of fractures.**
- **UDCA response was independently associated with improved bone outcomes,** while non-responders had a **3.5-fold higher fracture risk**
- Responders also had **lower alkaline phosphatase levels,** indicating better disease control.
- These findings suggest that achieving a biochemical response **to UDCA provide protective benefits against fractures** in older women with PBC receiving osteoporosis therapy.

Conclusions:

UDCA responders demonstrated significantly lower fracture incidence and improved long-term bone outcomes despite similar osteoporosis treatment, suggesting that achieving a biochemical response to UDCA may confer protection against fractures in older patients with PBC.

5. Role of GLP-1 Receptor Agonists in MASH Management: A Systematic Review and Meta-Analysis

Background :

- MASH is a growing global health burden with limited treatment options. GLP-1 receptor agonists have emerged as promising therapies due to their metabolic, anti-inflammatory, and potential antifibrotic effects.

Study Design/Methodology:

- 15 Systematic review and meta-analysis conducted according to PRISMA guidelines Including 1,989 biopsy-proven MASH patients.

Assessment/Outcomes:

- Histological outcomes (fibrosis improvement, MASH resolution), radiological outcomes (hepatic fat content), and biochemical markers Alanine Aminotransferase (ALT), Aspartate Aminotransferase (AST).

Results:

- **GLP-1 agonists significantly improved ≥1 stage fibrosis.**
- Higher MASH resolution without fibrosis worsening.
- **Significant reduction in hepatic fat (-6.74%), ALT (-37.11 U/L), and AST (-30.58 U/L).**
- Overall results strongly favored GLP-1 therapy despite moderate-to-high heterogeneity.

Conclusions:

GLP-1 receptor agonists demonstrate significant histological, radiological, and biochemical improvements in MASH, supporting their role as effective therapeutic agents for metabolic and hepatic disease management.

6. Impact of Ursodeoxycholic Acid Prophylaxis on One-Year Biliary Outcomes After Sleeve Gastrectomy

Background :

- UDCA is commonly used after sleeve gastrectomy to prevent biliary complications, but real-world evidence remains limited. This study evaluated whether UDCA initiated within 6 months of surgery reduces biliary events during the first postoperative year.

Study Design:

- Retrospective cohort study
- Adults aged 18–89 years undergoing sleeve gastrectomy were included
- Exposure: UDCA within 6 months vs no UDCA.
- Outcomes assessed over 365 days. 1:1 propensity score matching (age, sex, race/ethnicity) yielded 4,704 patients per group.

Assessment/Outcomes:

- Primary outcomes included cholelithiasis (K80), cholecystitis (K81), choledocholithiasis (K80.3–K80.5), and cholecystectomy (SNOMED/CPT/PCS codes).
- Additional safety outcomes included cholangitis, bile duct obstruction, ERCP procedures, and mortality.

Results:

- **UDCA was associated with significantly lower incidence of cholelithiasis, cholecystitis, and cholecystectomy (table 1).**

Table1: Effect of Ursodeoxycholic Acid on Biliary Outcomes

Outcome	UDCA (%)	No UDCA (%)	Interpretation
Cholelithiasis	1.9	2.8	Significant reduction
Cholecystitis	0.6	1.3	Significant reduction
Cholecystectomy	1.3	4.0	Strong significant reduction

Conclusions:

- **UDCA within 6 months after sleeve gastrectomy significantly reduces 1-year biliary complications, particularly gallstone-related disease and cholecystectomy. Findings support routine UDCA prophylaxis after sleeve gastrectomy based on large real-world multicenter evidence.**

PPI Therapy

7. Acid-Suppressive Therapy and Early De-escalation to Single Antiplatelet Therapy During DAPT: Updated Systematic Review and Meta-Analysis

Background :

- Dual Antiplatelet Therapy (DAPT) reduces thrombotic events after Acute coronary syndrome (ACS/ Percutaneous coronary intervention (PCI) but increases Gastrointestinal (GI) bleeding risk. This study evaluated the efficacy and safety of acid-suppressive therapy and early transition to SAPT in reducing bleeding while maintaining cardiovascular protection.

Study Design/Method:

- PRISMA-guided systematic review and meta-analysis of 51 studies (from 7,799 screened records) evaluating acid-suppressive therapy and Single Antiplatelet Therapy (SAPT) strategies on GI bleeding, mucosal injury, and Major Adverse Cardiovascular Events (MACE) using random-effects models.

Interventions Assessed:

- Proton Pump Inhibitor (PPI) therapy (including omeprazole), potassium-competitive acid blockers (PCABs), Histamine-2 (H2) receptor antagonists, and transition from DAPT to SAPT (aspirin or P2Y12 inhibitor monotherapy).

Results:

- PPI use significantly reduced GI bleeding without increasing MACE, but did not significantly reduce mucosal damage (Table 2).
- Omeprazole showed similar protective effects. PCABs were comparable in efficacy and safety to PPIs.
- PPIs were superior to H2 blockers for mucosal protection. Transition from DAPT to aspirin monotherapy reduced bleeding (RR 0.74) without affecting MACE (Table:2).

Table 2. PPI vs H2 blockers and antiplatelet de-escalation outcomes

Outcome	Interpretation
GI Bleeding (PPI vs Control)	65% lower risk with PPI therapy
PCAB vs PPI	Similar efficacy and safety
PPI vs H2 Blocker	Better mucosal protection with PPI
Aspirin Monotherapy after DAPT	26% lower bleeding risk; similar MACE
P2Y12 Monotherapy after DAPT	44% lower bleeding risk and 13% lower MACE

Conclusions:

Acid-suppressive therapy (PPIs or PCABs) during DAPT is safe and significantly reduces GI bleeding without increasing cardiovascular risk. Transition to SAPT—especially early P2Y12 monotherapy or aspirin monotherapy—optimizes the balance between bleeding and ischemic outcomes in high-risk PCI patients.

8. Long-Term Cholangiocarcinoma Risk with Chronic Proton Pump Inhibitor Therapy: A Propensity-Matched Real-World Analysis

Background :

- Long-term PPI use has been associated with concerns regarding gastrointestinal cancer risk, including cholangiocarcinoma. Previous studies may be limited by confounding. This study compared the risk of cholangiocarcinoma in chronic PPI users versus H2-receptor antagonist (H2RA) users.

Study Design:

- Retrospective propensity score-matched cohort study using the TriNetX Research Network, including adults ≥18 years with ≥3 prescriptions for a PPI or H2RA (2011–2013). After washout periods and 1:1 matching, 66,932 patients per cohort were followed for 2–10 years.

Assessment Parameters:

- Primary Outcome: Cholangiocarcinoma. Secondary Outcomes: Other gastrointestinal cancers (biliary, pancreatic, hepatic, gastric, colorectal, and esophageal cancers).

Results:

- Cholangiocarcinoma incidence was similar between groups **(76 vs 71 cases).**

Conclusions:

- **Chronic PPI use was not associated with an increased risk of cholangiocarcinoma compared with H2RA therapy.**
- **These findings support the safety of PPIs regarding biliary tract malignancies, although over-the-counter PPI and H2RA use could not be assessed.**

9. Rates of Persistent GERD After Eight Weeks of Standard-Dose Proton Pump Inhibitor Therapy

Background :

- Many Gastroesophageal Reflux Disease (GERD) patients undergo early PPI dose escalation despite guideline-recommended 8-week standard-dose therapy. This meta-analysis evaluated rates of persistent objective GERD and symptoms after standard-dose PPI treatment in patients with confirmed GERD.

Study Design:

- Systematic review and meta-analysis of randomized and observational studies. A total of 110 studies involving 48,780 patients with objectively confirmed GERD were included.

Assessment Parameters:

- Primary Outcomes:
  (1) Persistent objective GERD findings after 8 weeks of single-dose PPI therapy,
  (2) Persistent typical GERD symptoms after 8 weeks.
  Subgroup Analyses: By PPI agent and symptom type (heartburn, regurgitation).

Results:

- Persistent objective GERD occurred in 10.4% of patients. Persistent typical GERD symptoms occurred in 18.5%.
- Esomeprazole showed the lowest rate of persistent objective GERD (8.4%), while omeprazole showed the highest (13.0%).
- Heartburn persisted more frequently than regurgitation.

Conclusions:

Persistent objective GERD and symptoms after 8 weeks of standard-dose PPI therapy are relatively uncommon. These findings support guideline-recommended stepwise management and suggest that PPI dose escalation should generally follow completion of an adequate single-dose treatment trial.

10. Diet Quality and Its Association with MASLD and Liver Fibrosis

Background :

- MASLD affects nearly one-third of adults worldwide. This study evaluated the association between various dietary quality indices and the risk of MASLD and liver fibrosis.

Study Design:

- Cross-sectional NHANES 2017–2023 study of 9,563 adults, evaluating associations between dietary quality indices (HEI-2020, AHEI, DASH, aMED, DI-GM, and DII) and liver outcomes using VCTE.

Assessment Parameters:

- **Outcomes:** MASLD (CAP >248 dB/m), significant fibrosis (LSM ≥8 kPa), advanced fibrosis (LSM ≥10 kPa), and cirrhosis (LSM ≥15 kPa).

Results:

- Higher adherence to healthy dietary patterns was associated with lower odds of MASLD and fibrosis.
- HEI-2020 and DII showed consistent protection across all liver outcomes. DASH was protective against MASLD and fibrosis but not cirrhosis.
- AHEI and aMED mainly protected against fibrosis, while DI-GM showed limited protection for MASLD only.

(Abbreviations: VCTE – Vibration-Controlled Transient Elastography HEI-2020 – Healthy Eating Index 2020 AHEI – Alternative Healthy Eating Index DASH – Dietary Approaches to Stop Hypertension aMED – Alternate Mediterranean Diet Score DI-GM – Dietary Index for Gut Microbiota DII – Dietary Inflammatory Index CAP – Controlled Attenuation Parameter LSM – Liver Stiffness Measurement MASLD – Metabolic Dysfunction-Associated Steatotic Liver Disease)

Conclusions:

HEI-2020 and DII were the most consistently protective dietary indices across all stages of MASLD and fibrosis, supporting diets rich in fruits, vegetables, whole grains, legumes, nuts, fish, and low in processed foods, saturated fats, sodium, and added sugars.

GLP-1/ SGLT2 for HEPATOPROTECTION

11. Comparative Hepatoprotective Effects of GLP-1 Receptor Agonists, SGLT2 Inhibitors, and DPP-4 Inhibitors in MASLD with Type 2 Diabetes

Background :

- MASLD commonly coexists with type 2 diabetes and increases the risk of cirrhosis and hepatocellular carcinoma. This study compared the hepatoprotective effects of Glucagon-Like Peptide-1 (GLP-1) Receptor Agonist receptor agonists, Sodium-Glucose Cotransporter-2 Inhibitor (SGLT2) inhibitors, and Dipeptidyl Peptidase-4 Inhibitor-4 (DPP-4) inhibitors.

Study Design:

- **Adults with MASLD and type 2 diabetes initiating GLP-1RA, SGLT2i, or DPP-4i between 2015-2025 were included.** Patients with pre-existing cirrhosis, hepatic decompensation, or competing liver diseases were excluded.

Assessment Parameters:

- Primary Outcome: Major Adverse Liver Outcomes (MALO), including incident cirrhosis, variceal bleeding, ascites, hepatic encephalopathy, hepatocellular carcinoma, liver transplantation, over 5 years.

Results:

- **GLP-1RA significantly reduced MALO** compared with both DPP-4i and SGLT2i. SGLT2i also demonstrated lower risk compared with DPP-4i.

Conclusions:

> **GLP-1RA therapy provided the greatest hepatoprotective benefit, substantially reducing major liver complications in MASLD patients with diabetes and supporting its prioritization for combined metabolic and liver benefits.**

12. GLP-1 Receptor Agonists versus SGLT2 Inhibitors in Cirrhosis: Comparative Clinical Outcomes from a Propensity-Matched Analysis

Background :

- GLP-1 receptor agonists have shown benefits in chronic liver disease, particularly MASLD, but evidence in patients with established cirrhosis remains limited. This study compared GLP-1RAs with SGLT2 inhibitors in cirrhotic patients.

Study Design:

- Retrospective propensity-matched cohort. Adults (≥18 years) with cirrhosis diagnosed between 2000–2020 were included. GLP-1RA users were matched 1:1 with SGLT2i users based on demographics, comorbidities, laboratory parameters, and medications. Follow-up was 3 years.

Assessment Parameters:

- Outcomes: All-cause mortality, all-cause hospitalization, hepatocellular carcinoma (HCC), ascites, variceal bleeding, acute kidney injury/hepatorenal syndrome (AKI/HRS), and hepatic encephalopathy.

Results:

- GLP-1RA use was associated with lower risks of liver decompensation events, HCC, hospitalization, and mortality compared with SGLT2i. No significant difference was observed for hepatic encephalopathy.

Conclusions:

- **In patients with cirrhosis, GLP-1RAs were associated with significant reductions in hepatic complications, hospitalization, and mortality compared with SGLT2 inhibitors, supporting their use when clinically appropriate.**

13. SGLT2 Inhibitors Reduce Arrhythmia Burden and ICD Therapies in MASLD Patients with HFpEF and Atrial Fibrillation

Background :

- MASLD is closely associated with atrial fibrillation (AF), heart failure with preserved ejection fraction (HFpEF), and increased cardiovascular risk. The impact of SGLT2 inhibitors on arrhythmia burden and Implantable Cardioverter-Defibrillator (ICD) therapies in MASLD patients with HFpEF and AF remains unclear.

Study Design:

- Retrospective cohort study. Adults with MASLD, HFpEF, AF, and a transvenous Implantable Cardioverter-Defibrillator (ICD) were identified. Patients receiving SGLT2 inhibitors were compared with non-users. Propensity score matching (1:1) resulted in 944 patients per group.

Assessment Parameters:

- Outcomes: ICD shocks, arrhythmia recurrence Ventricular Tachycardia (VT), Ventricular Fibrillation (VF), heart failure hospitalization, all-cause mortality, myocardial infarction (MI), stroke, gastrointestinal bleeding, and intracerebral hemorrhage

Results:

- SGLT2 inhibitor use was associated with fewer ICD shocks, lower arrhythmia recurrence, reduced heart failure hospitalizations, and lower mortality. No significant differences were observed for MI, stroke, GI bleeding, or intracerebral hemorrhage (table 3).

Table 3. SGLT2 inhibitor–associated clinical outcomes in MASLD with HFpEF and AF

ICD Shocks	20% lower risk with SGLT2i
Arrhythmia Recurrence	17% lower risk with SGLT2i
Heart Failure Hospitalization	22% lower risk with SGLT2i
All-cause Mortality	26% lower risk with SGLT2i

Conclusions:

- **In MASLD patients with HFpEF, AF, and ICDs, SGLT2 inhibitors were associated with important antiarrhythmic and cardioprotective benefits, including fewer ICD shocks, reduced hospitalizations, and improved survival.**

14. Association Between Serum Vitamin D Levels and Liver Stiffness in U.S. Adults: Findings from NHANES 2021–2023

Background :

- The relationship between vitamin D status and liver health remains unclear. This study examined the association between serum 25-hydroxyvitamin D levels and ultrasound-based liver stiffness measures.

Study Design:

- Cross-sectional NHANES 2021–2023 analysis of 3,139 adults with valid liver ultrasound examinations, evaluating associations between vitamin D levels and liver stiffness using linear regression models.

Assessment Parameters:

- Primary outcomes: Ultrasound-assessed liver stiffness summary score.
  Predictors: Serum 25-hydroxyvitamin D, serum folate, age, sex, and race/ethnicity.

Results:

- Higher vitamin D levels were significantly associated with lower liver stiffness scores.
- The association remained significant after adjustment for demographic factors and serum folate.
- Serum folate showed no independent association with liver stiffness.

Conclusions:

> **Lower vitamin D levels are associated with worse ultrasound-based liver stiffness findings, supporting vitamin D as a potential biomarker of liver health.**

15. Cardiometabolic and Renal Benefits of GLP-1 Receptor Agonists Compared with SGLT2 Inhibitors in IBD Patients with Obesity or MASLD

Background :

- Obesity and MASLD are increasingly prevalent in patients with inflammatory bowel disease (IBD), increasing cardiovascular and renal risk. However, the comparative benefits of GLP-1 receptor agonists and SGLT2 inhibitors in this population remain unclear.

Study Design:

- Retrospective propensity score-matched cohort study of adults with Crohn's disease or ulcerative colitis and coexisting obesity or MASLD, comparing 2,114 GLP-1 RA users with 2,114 SGLT2 inhibitor users.

Assessment Parameters:

- Major adverse cardiovascular events (MACE), composite of death/heart failure/ischemic heart disease, Chronic Kidney Disease (CKD)/End-Stage Renal Disease (ESRD), and hepatic decompensation Systolic Blood Pressure (SBP).

Results:

- GLP-1 RAs were associated with lower risks of MACE, cardiovascular composite outcomes, and CKD/ESRD compared with SGLT2i. Rates of hepatic decompensation were similar between groups (Table 4).

Table 4. GLP-1 RAs vs SGLT2i outcomes in IBD with MASLD/obesity

Outcome	Interpretation
MACE	20% lower hazard with GLP-1 RA
Death/Heart Failure/Ischemic Heart Disease	43% lower hazard with GLP-1 RA
CKD/ESRD Progression	32% lower hazard with GLP-1 RA
Overall Cardiometabolic Outcomes	Favored GLP-1 RA
Renal Outcomes	Favored GLP-1 RA

Conclusions:

- **In IBD patients with obesity or MASLD, GLP-1 RAs demonstrated superior cardiometabolic and renal outcomes compared with SGLT2 inhibitors, while hepatic decompensation risk remained comparable.**

16. Comparative Hepatic Benefits of Tirzepatide and Semaglutide in NAFLD/MASLD

Background :

- Metabolic Dysfunction-Associated Steatotic Liver Disease/Non-Alcoholic Fatty Liver Disease (MASLD/NAFLD) is a growing global health problem with limited effective pharmacologic therapies. Semaglutide and tirzepatide have demonstrated promising hepatic and metabolic benefits, but direct comparative evidence is limited.

Study Design:

- Systematic review and Bayesian network meta-analysis of 9 phase II–III randomized controlled trials involving 3,948 participants with NAFLD/MASH.

Assessment Parameters:

- Primary Outcome: Reduction in hepatic fat fraction (MRI-PDFF).
- Secondary Outcomes: Fibrosis progression/improvement, and adverse events.

Abbrevations: ALT – Alanine Aminotransferase AST – Aspartate Aminotransferase NASH – Non-Alcoholic Steatohepatitis, Metabolic Dysfunction-Associated Steatotic Liver Disease/Non-Alcoholic Fatty Liver Disease (MASLD/NAFLD)

Results:

- Both semaglutide and tirzepatide significantly reduced liver fat versus placebo.
- Tirzepatide demonstrated greater reductions in hepatic steatosis and ALT compared with semaglutide.
- AST changes, NASH resolution, fibrosis improvement, and safety profiles were similar between treatments.

Conclusions:

- **Tirzepatide appears to provide greater reductions in liver fat and ALT than semaglutide, while maintaining a similar safety profile.**

17. Association of GLP-1 Receptor Agonist Therapy with Liver Function Outcomes in Type 2 Diabetes

Background :

- Type 2 Diabetes Mellitus (T2DM) is associated with steatohepatitis and progressive liver disease, but the impact of GLP-1 receptor agonists on liver-related outcomes remains uncertain.

Study Design:

- Retrospective cohort study comparing T2DM patients receiving GLP-1 receptor agonists with those receiving ≥2 oral antidiabetic drugs; after 1:1 propensity score matching, **204,206 patients (102,103 per group) were followed for 3 years.**

Assessment Parameters:

- **Outcomes:** Liver disease, cirrhosis, elevated liver enzymes, bilirubin/jaundice, acute liver failure, hepatorenal syndrome (HRS), abnormal INR, abnormal platelet count, ICU admissions, and all-cause mortality.

Results:

- GLP-1 RA users had lower risks of cirrhosis, elevated liver enzymes, bilirubin/jaundice, acute liver failure, HRS, ICU admissions, and mortality compared with Oral Antidiabetic Drug (OAD) users (Table 5).

Table 5. GLP-1 RA vs OAD hepatic outcomes in T2DM

Outcome	Interpretation
Cirrhosis	31% lower risk with GLP-1 RA
Elevated Liver Enzymes	29% lower risk with GLP-1 RA
Bilirubin/Jaundice	14% lower risk with GLP-1 RA
Acute Liver Failure	39% lower risk with GLP-1 RA
Hepatorenal Syndrome	39% lower risk with GLP-1 RA
ICU Admissions	29% lower risk with GLP-1 RA
All-Cause Mortality	27% lower risk with GLP-1 RA

Conclusions:

- **GLP-1 receptor agonists were associated with significant hepatic and clinical benefits in patients with T2DM, supporting their potential role in preventing liver disease progression and improving overall outcomes.**

18. Impact of SGLT2 Inhibitors on Survival and Liver-Related Outcomes in MASLD: A Real-World Cohort Study

Background :

- MASLD is closely associated with type 2 diabetes and cardiovascular disease, but the impact of SGLT2 inhibitors on cirrhosis-related outcomes and mortality remains unclear.

Study Design:

- Retrospective propensity score-matched cohort study of adults with MASLD (excluding viral, autoimmune, and alcohol-related liver disease), comparing 124,571 SGLT2 inhibitor users with 124,571 non-users.

Assessment Parameters:

- **Primary Outcome:** All-cause mortality.
- **Secondary Outcomes:** Portal vein thrombosis (PVT), hepatocellular carcinoma (HCC), and liver transplantation.

Results:

- SGLT2 inhibitor use was associated with significantly lower all-cause mortality and reduced portal vein thrombosis risk (Table- 6).
- No significant differences were observed in hepatocellular carcinoma or liver transplantation rates.

Table 6. SGLT2 inhibitors: mortality and portal vein thrombosis in MASLD

Outcome	Interpretation
All-Cause Mortality	54% lower hazard with SGLT2 inhibitors
Portal Vein Thrombosis	18% lower hazard with SGLT2 inhibitors

Conclusions:

SGLT2 inhibitor therapy was associated with substantial survival benefits and lower portal vein thrombosis risk in MASLD patients, suggesting a favorable impact on disease progression.

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