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Endocrinology ADVISOR

DIABETES

GLP-1 RAs, SGLT2 Inhibitors May Reduce Risk for Alzheimer Disease, Dementia in T2DM

April 22, 2025

HealthDay News — Both glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and sodium-glucose cotransporter-2 inhibitors (SGLT2is) are associated with a reduced risk for Alzheimer disease and related dementias (ADRDs) among people with type 2 diabetes (T2D), according to a study published online April 7 in *JAMA Neurology*.

Huilin Tang, Ph.D., from the University of Florida College of Pharmacy in Gainesville, and colleagues examined the risk for ADRDs associated with GLP-1 RAs and SGLT2is in people with T2D in a target trial emulation study using electronic health record data. There were 396,963 eligible patients with T2D, of whom 33,858 were included in the GLP-1 RA versus the other glucose-lowering drug (GLD) cohort; 34,185 in the SGLT2i versus the other GLD cohort; and 24,117 in the GLP-1 RA versus SGLT2i cohort.

The researchers found that in inverse probability of treatment weighting-weighted cohorts, the incidence rate of ADRD was lower in GLP-1 RA initiators versus other GLD initiators and in SGLT2i initiators versus other GLD initiators, yielding hazard ratios of 0.67 and 0.57, respectively. No significant difference was seen between GLP-1 RAs and SGLT2is.

"These results support the potential neuroprotections of GLP-1 RAs and SGLT2is and highlight their possible role in ADRD prevention strategies. The comparable association between GLP-1 RAs and SGLT2is provides flexibility in treatment choices while potentially offering cognitive benefits," the authors write.

KEY POINT

The incidence rate of ADRD was lower in GLP-1 RA initiators versus other GLD initiators and in SGLT2i initiators versus other GLD initiators.

Malnutrition-Related Diabetes Officially Named ‘Type 5’

Medscape

Miriam E. Tucker
April 11, 2025

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Malnutrition-related diabetes, distinct from both type 1 and type 2, has now been officially recognized and named “type 5 diabetes.”

The vote to endorse the category took place on April 8, during the International Diabetes Federation’s (IDF’s) World Diabetes Congress, held in Bangkok, Thailand. In January 2025, a panel met in India to draft a consensus statement about the condition, due to be published soon, Meredith Hawkins, MD, professor of medicine at Albert Einstein College of Medicine, Bronx, New York, told *Medscape Medical News.*

“Malnutrition-related diabetes has historically been vastly underdiagnosed and poorly understood...The IDF’s recognition of it as ‘type 5 diabetes’ is an important step toward raising awareness of a health problem that is so devastating to so many people,” Hawkins said.

Malnutrition-related diabetes was first described in Jamaica in 1955. It is seen most commonly in young men in low- and middle-income countries (LMICs) who have a body mass index < 19. They are often misdiagnosed as having type 1 diabetes, but they don't develop ketonuria or ketosis despite high blood glucose levels and high insulin requirements.

In 1985, the World Health Organization officially classified "malnutrition-related diabetes mellitus" as a distinct diabetes type, but then in 1999 dropped the category, citing a lack of evidence that malnutrition or protein deficiency causes diabetes.

Hawkins became aware of malnutrition-related diabetes in 2005 while teaching at global health meetings. In 2010, she founded Einstein's Global Diabetes Institute to study it. In 2022, she and her colleagues published findings from state-of-the-art metabolic testing in 73 Asian Indian men, including 20 with what is now called "type 5 diabetes" following exclusion of all other known forms of diabetes by immunogenetic analysis. Another 15 had type 1 diabetes, 13 had type 2 diabetes, 16 were lean without diabetes, and nine were overweight without diabetes.

Among the findings were lower total insulin secretion in the "type 5" group than in both the lean group without diabetes and the T2D group, significantly lower endogenous glucose production and significantly higher glucose uptake in the type 5 group than in the T2D group, and significantly lower visceral adipose tissue and hepatocellular lipids in the type 5 group than in the T2D group.

These findings contradict the previous belief that malnutrition-associated diabetes was associated primarily with insulin resistance. "It turns out people with this form of diabetes have a profound defect in the capacity to secrete insulin, which wasn't recognized before. This finding has revolutionized how we think about this condition and how we should treat it," Hawkins said.

She told *Medscape Medical News* it's important to differentiate type 5 from type 1 diabetes because giving too much insulin can rapidly prove fatal. Although there aren't clear guidelines yet for treating type 5, some data suggest that very small amounts of insulin combined with oral agents may be the most effective.

And, Hawkins added, "I suspect that their nutrition should include much higher amounts of protein and lower amounts of carbohydrates, plus attention to deficient micronutrients…but this needs to be carefully studied now that there is global will and an official mandate from [the International Diabetes Federation] to do so."

Hawkins lectures on this topic often at universities in LMICs. "They frequently ask, 'Why is it we see so much of it and yet never read about it in textbooks?' Turns out those textbooks are written in the West, where it is not encountered. This will change soon…I'm excited that the tide is turning on a condition that is so prevalent among the world's poor yet so neglected in Western literature."

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Medical press

MAY 9, 2025

The GIST

Weight-loss drugs cut alcohol intake by almost two-thirds, research in Ireland suggests

by European Association for the Study of Obesity

Editors' notes

The research is also published in the journal *Diabetes, Obesity and Metabolism*.

Alcohol use disorder is a relapsing condition that accounts for 2.6 million deaths a year—4.7% of all deaths globally.

Treatments such as cognitive behavioral therapy (CBT), therapies that aim to strengthen motivation to stop or reduce drinking and medication can be very successful in the short term, however, 70% of patients relapse within the first year.

Glucagon-like peptide-1 (GLP-1) analogs, drugs developed to treat obesity, have reduced alcohol intake in animal studies, but reports are only starting to emerge about their effect on alcohol intake in humans.

To find out more, Professor Carel le Roux, of University College Dublin, and colleagues in Ireland and Saudi Arabia prospectively collected data on the alcohol intake of patients who were being treated for obesity at a clinic in Dublin.

The real-world study involved 262 adults with a BMI ≥27 kg/m^2 (79% female, average age 46 years, average weight 98kg/15 stone 6lb) who were prescribed the GLP-1 analogs liraglutide or semaglutide for weight loss.

The patients were categorized into non-drinkers (n=31, 11.8%), rare drinkers (<10 units/week, n=52 19.8%) and regular drinkers (>10 units/week, n=179, 68.4%) based on their self-reported alcohol intake before they started taking the weight-loss drugs.

A total of 188 of the 262 patients were followed up for an average of four months. None of them had increased their alcohol intake.

Average alcohol intake decreased from 11.3 units/week to 4.3 units/week after four months of treatment with the GLP-1 analogs—a reduction of almost two-thirds.

Among the regular drinkers, intake decreased from 23.2 units/week to 7.8 units/week. This reduction of 68% is comparable to that achieved by nalmefene, a drug used to treat alcohol use disorder in Europe, notes Professor le Roux.

He adds, "The exact mechanism of how GLP-1 analogs reduce alcohol intake is still being investigated, but it is thought to involve curbing cravings for alcohol that arise in subcortical areas of the brain that are not under conscious control. Thus, patients report the effects are 'effortless.'"

The study's limitations include the relatively small number of patients, the use of self-reported alcohol intake and the absence of a control group. Its strengths include the use of data collected prospectively in a real-world setting.

Professor le Roux concludes, "GLP-1 analogs have been shown to treat obesity and reduce the risk of multiple obesity-related complications. Now, the beneficial effects beyond obesity, such as on alcohol intake, are being actively studied, with some promising results."

Single Brain MRI Reveals Accelerated Aging, Dementia Risk

Medscape

Megan Brooks
July 11, 2025

A novel brain-based "aging" clock can accurately and reliably estimate how quickly an individual is biologically aging from a single MRI scan, offering a potential tool to help clinicians predict the risk for dementia, mild cognitive impairment, and other chronic diseases, a new study showed.

Investigators developed the Dunedin Pace of Aging Calculated from NeuroImaging (DunedinPACNI) to estimate an individual's pace of aging based on brain MRI features such as cortical thickness, surface area, gray matter volume, gray-to-white matter contrast, subcortical volumes, and ventricular sizes.

In a series of studies with more than 50,000 brain MRI scans from people aged 22-98 years across multiple datasets, those whose biological age outpaced their chronological age not only had poorer cognition, faster hippocampal atrophy, and greater dementia risk but also worse general health, including greater frailty, poorer self-reported health, and greater risk for chronic disease and premature death.

While more research on the new tool is needed, investigators said they expect it will be ready for use in clinical practice in a few years.

“Perhaps our boldest expectation is for DunedinPACNI to become part of routine clinical care across the lifespan as an index of faster aging that can help physicians identify patients at risk for later poor health well before symptoms appear and when prevention efforts can be most effective,” Ahmad R. Hariri, PhD, professor of psychology and neuroscience and director, Laboratory of Neurogenetics, Duke University, Durham, North Carolina, told *Medscape Medical News*.

The DunedinPACE-NI tool builds on earlier research from a long-term study that has followed more than 1000 individuals born in Dunedin, New Zealand, in 1972-1973.

The researchers initially used data from this study to develop DunedinPACE, a blood-based epigenetic clock that uses DNA methylation to estimate the rate of aging. While DunedinPACE has shown strong associations with morbidity, brain aging, and more. Itsy, its application is limited to studies where blood samples are available, the researchers noted.

To overcome this limitation, they developed DunedinPACNI, which uses data from a single standard T1-weighted MRI scan to estimate an individual's longitudinal pace of aging — a composite index reflecting physiological decline across cardiovascular, metabolic, immune, renal, and other systems.

The researchers trained DunedinPACNI on MRI data from 860 participants in the Dunedin Study, all scanned at age 45. The model incorporated 315 structural brain features. The algorithm for DunedinPACNI is publicly available to the research community.

Applying this measure to the Alzheimer's Disease Neuroimaging Initiative (ADNI), UK Biobank and BrainLat datasets showed that faster DunedinPACNI scores predicted cognitive impairment, accelerated brain atrophy, and conversion to diagnosed mild cognitive impairment (MCI) or dementia.

Investigators need to develop normative reference charts for DunedinPACNI, similar to what they have done for such measures as height, weight, and BMI, Hariri noted.

“It will take time to analyze the tens of thousands of scans collected across the lifespan necessary to develop these norms, but we’ve already begun to do this. We are confident that reference norms for DunedinPACNI will be ready within the next year and, subsequently, DunedinPACNI can be adopted in clinical practice within a few years,” Hariri said.

Obesity Is a Risk Factor for Remission Failure in Early RA

Edited by Archita Rai

UK

April 21, 2025

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Medscape

TOPLINE:

Patients with obesity and early rheumatoid arthritis (RA) had an increased risk for remission failure after 6 months of starting methotrexate treatment, regardless of the presence of underlying comorbidities.

METHODOLOGY:

- Researchers analysed data from a population-based case-control study linked to the Swedish Rheumatology Quality Register to investigate the association of obesity and/or overweight with the risk for remission failure in patients with early RA, accounting for comorbidities and lifestyle factors.
- They included 1285 adult patients newly diagnosed with RA (median age, 58 years; 70% women) who initiated methotrexate monotherapy between January 2006 and February 2018.

- Patients were categorised according to body mass index (BMI): Those with normal weight (BMI, 18.5-24.9; n = 598), those with overweight (BMI, 25-29.9; n = 453), and those with obesity (BMI ≥ 30; n = 217).
- Data on 31 different comorbidities, including cardiovascular, respiratory, and other conditions, were collected from the date of methotrexate initiation and for the 5 years preceding it.
- The primary outcome was 28-joint Disease Activity Score (DAS28) remission, defined as a score < 2.6 or DAS28–C-reactive protein < 2.4, at 3 and 6 months after methotrexate initiation. Secondary outcomes included Clinical Disease Activity Index remission, Simplified Disease Activity Index remission, Boolean remission, a good response, and no swollen joints.

TAKEAWAY:

- Six months after methotrexate initiation, 64% of patients with obesity, 52% of those with overweight, and 48% of those with normal weight did not achieve DAS28 remission.
- At 6 months, patients with obesity had a higher risk for remission failure than those with normal weight, after adjusting for comorbidities and other factors (adjusted relative risk [aRR], 1.27; 95% CI, 1.08-1.50), whereas no significant association was found in patients with overweight.
- Women with obesity were at a significantly increased risk for remission failure at both 3 months (aRR, 1.26; 95% CI, 1.08-1.49) and 6 months (aRR, 1.36; 95% CI, 1.13-1.62). Additionally, smoking was associated with a higher risk for remission failure at 6 months in both patients with obesity and those with overweight than in those with normal weight.

- The findings of an increased risk for remission failure were consistent across various secondary outcomes. Obesity was linked to an increased risk for inflammation among patients with overweight and obesity at 3 months.

IN PRACTICE:

"Our study confirms the previously described observation of an increased risk of remission failure among patients with obesity and early RA and extends this observation by demonstrating that this association could not be explained by the assessed comorbid conditions or lifestyle habits among patients with obesity," the authors wrote.

SOURCE:

This study was led by Liselotte Tidblad, MD, Karolinska Institutet, Stockholm, Sweden. It was published online on April 15, 2025, in *RMD Open*.

Is Carpal Tunnel an Early Sign of Rheumatoid Arthritis?

Medscape

Edited by Lucy Hicks
May 07, 2025

TOPLINE:

Carpal tunnel syndrome (CTS) appeared more than twice as frequently in patients before rheumatoid arthritis (RA) diagnosis than in those without RA, suggesting that CTS could serve as an early indicator for RA risk.

METHODOLOGY:

- Researchers conducted a population-based study using the Rochester Epidemiology Project, which provides comprehensive longitudinal health information from Olmsted County, Minnesota.
- Analysis included 1335 patients with RA meeting the 1987 American College of Rheumatology classification criteria between 1980 and 2019.
- Patients with RA were matched 1:1 with 1331 control individuals.
- Investigators identified CTS cases through two or more diagnosis codes occurring at least 30 days apart.

TAKEAWAY:

- A total of 13% of individuals who developed RA were diagnosed with CTS prior to or at the onset of RA compared with 6% in non-RA individuals (odds ratio [OR], 2.23; 95% CI, 1.69-2.94).
- In patients with RA, most CTS diagnoses occurred at least 2 years before the onset of RA.
- Patients with RA were also at an increased risk for CTS following the onset of RA (hazard ratio [HR], 1.78; 95% CI, 1.38-2.30).
- Obesity (HR, 1.42; 95% CI, 1.02-1.99) and seronegativity for anti–cyclic citrullinated peptide antibodies (HR, 1.79; 95% CI, 1.07-2.99) were associated with increased risk for CTS in the RA group.

IN PRACTICE:

“Increased vigilance is needed in individuals with CTS regarding the risk of developing RA. Referral to a rheumatologist can be considered, particularly in persistent and severe forms of CTS (eg, patients requiring carpal tunnel release surgery), that are not otherwise explained by traditional risk factors (eg, obesity, hypothyroidism, [diabetes mellitus]) and regardless of serostatus,” wrote the authors of the study.

SOURCE:

This study was led by Roslin Jose George, MBBS, MPH, of the Mayo Clinic in Rochester, Minnesota. It was published online in *Arthritis Care & Research* on May 5, 2025.

International Journal of Rheumatic Diseases

ORIGINAL ARTICLE

Fracture Risk Linked to Proton Pump Inhibitors Versus H2 Receptor Antagonists in Autoimmune Rheumatic and Gastrointestinal Disease Patients

Miaoyu Zeng, Yung-Heng Lee, Shiow-Ing Wang, Andriko Palmowski, Wei-Min Chu, Frank Buttgereit

First published: 11 February 2025 | https://doi.org/10.1111/1756-185X.70055 | Citations: 1

Miaoyu Zeng and Shiow-Ing Wang contributed equally for this work.

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Objective

To understand if proton pump inhibitors (PPIs) usage associated with an increased risk of fractures among adult patients diagnosed with autoimmune rheumatic and gastrointestinal diseases, compared with H2 receptor antagonists (H2RAs) usage.

Methods

We used the TriNetX US collaborative database for the study, which includes detailed demographic information, diagnostic and procedural data, medication details, laboratory results, genomic information, and healthcare utilization metrics. We analyzed 61 healthcare organizations to compare fracture risks associated with PPIs and H2RAs in adults, particularly those diagnosed with autoimmune rheumatic and gastrointestinal diseases. Propensity score matching acted as a control for demographic and clinical variables.

Results

The study involved 1 717 598 patients, focusing on 16 299 who were new users of PPIs and 16 299 H2RAs users after propensity score matching. Over a 24-month follow-up period, no significant differences in fracture risks were observed between the PPI and H2RA groups in the overall cohort (hazard ratio, HR = 1.369, 95% confidence interval, CI = 0.933–2.009). However, subgroup analysis indicated that senior patients (≥ 65 years) who had been administered PPIs experienced a significantly higher risk of fractures (HR = 1.927 [1.153–3.221]), particularly non-vertebral fractures (HR = 2.379 [1.214–4.661]), when compared to their counterparts who had been prescribed H2RAs. Notably, the simultaneous use of PPIs and glucocorticoids further increased the fracture risk (HR = 4.273 [2.219–8.227]).

Conclusions

The study demonstrates that patients diagnosed with autoimmune rheumatic and gastrointestinal diseases who were aged 65+ face increased fracture risks when using PPIs, particularly when there is a simultaneous intake of glucocorticoids.

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Early β-Blocker Use and Clinical Outcomes in Acute Myocardial Injury: A Retrospective Cohort Study

Linjie Li, MD · Geru A, MD, PhD · Yifan Guo, MD · ... · Xin Zhou, MD, PhD · Pengfei Sun, MD, PhD · Qing Yang, MD, PhD ...
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Abstract

Background

Acute myocardial injury is defined by elevated cardiac troponin levels with a rising and/or falling pattern, and is associated with increased mortality risk compared to patients without myocardial injury. The role of β-blockers in patients with acute myocardial injury remains unclear.

Methods

This multicenter, retrospective cohort study used data from the Tianjin Health and Medical Data Platform to assess the impact of early β-blocker use on 1-year all-cause mortality and major adverse cardiovascular events (MACE) in acute myocardial injury patients, employing a new user and target trial emulation design. Propensity score matching was applied, and Cox regression was used to calculate hazard ratios (HR) and 95% confidence intervals (CI).

Results

After propensity score matching, a total of 25,966 participants were included: 8667 to the β-blocker group and 17,299 to the non-β-blocker group. A total of 4113 deaths (15.8%) and 5795 MACE (22.3%) occurred. Compared with nonusers, β-blocker was associated with the reduced risk of all-cause mortality (HR: 0.89, 95% CI: 0.83-0.95) and MACE (HR: 0.90, 95% CI: 0.85-0.95). In the subgroup analysis, β-blockers were associated with a significantly reduced risk of mortality in patients without stroke (HR 0.85, 95% CI: 0.78-0.93), while no significant association was observed in patients with stroke (HR 1.04, 95% CI: 0.93-1.16).

Conclusions

Early use of β-blockers is associated with the reduced risk of 1-year mortality in patients with acute myocardial injury. To more accurately assess the therapeutic effects, prospective trials are necessary, and these data provide key research directions for future trials.

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Kidneys or Liver: What to Monitor With Methotrexate in RA?

Edited by Archita Rai

UK

April 14, 2025

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Medscape

TOPLINE:

Liver-related adverse drug reactions were nearly three times more common than kidney-related adverse drug reactions in patients with rheumatoid arthritis (RA) using methotrexate; however, fatal outcomes were higher in patients with kidney-related adverse drug reactions than in those with liver-related adverse drug reactions and even worse in those with adverse drug reactions affecting both.

METHODOLOGY:

- Researchers conducted a retrospective study using reports from a European spontaneous reporting system until 2022 to assess the effect of methotrexate and comedications on kidney- and liver-related adverse drug reactions in patients with RA.
- They included 10,319 reports of adverse drug reactions with RA as the indication and methotrexate as the interacting or suspected drug (mean age of patients, 62.3 years; 72.6% women). The median duration of methotrexate use was 13.2 months.

- Comedications included non-steroidal anti-inflammatory drugs (NSAIDs), metamizole, acetaminophen, disease-modifying antirheumatic drugs, corticosteroids, and folic acid.
- Outcomes were categorised as either fatal (resulting in death) or non-fatal, (including life-threatening situations, prolonged hospitalisation, disabilities, congenital anomalies, or other conditions).

TAKEAWAY:

- A total of 365 reports of adverse drug reactions were related to the kidneys, 1082 reports were related to the liver, and 67 reports were related to both the kidneys and the liver.
- Patients with kidney-related adverse drug reactions had a longer duration of methotrexate use (median, 16.2 vs 9.9 months) and more fatal outcomes (21.1% vs 5.8%) than those with liver-related adverse drug reactions.
- Patients with liver-related adverse drug reactions who had fatal outcomes were older than those with non-fatal outcomes ($P < .001$) and had a more common use of comedications, including corticosteroids ($P = .012$), acetaminophen ($P = .002$), metamizole ($P = .001$), and any comedication ($P \leq .001$).
- A higher proportion of patients with adverse drug reactions affecting both the liver and kidneys had fatal outcomes and use of NSAIDs, acetaminophen, or metamizole than those with adverse drug reactions affecting only the kidneys or the liver ($P < .001$ for all).

IN PRACTICE:

"Because drug management in patients with RA using MTX [methotrexate] is a complex matter, precise and standardised recommendations on when and how frequently renal function needs to be tested to detect early signs of renal impairment might be helpful to prevent fatal outcomes," the authors wrote.

SOURCE:

This study was led by Kai Khoroshun, Carl von Ossietzky Universität Oldenburg, Oldenburg, Germany. It was published online on April 05, 2025, in *Arthritis Research & Therapy*.

NGUỒN THAM KHẢO

- https://www.medscape.com/viewarticle/carpal-tunnel-early-sign-rheumatoid-arthritis-2025a1000b3w
- https://onlinelibrary.wiley.com/doi/full/10.1111/1756-185X.70055
- https://www.medscape.com/viewarticle/obesity-risk-factor-remission-failure-early-ra-2025a1000951
- https://www.amjmed.com/article/S0002-9343(25)00140-8/fulltext
- https://www.medscape.com/viewarticle/kidneys-or-liver-what-monitor-methotrexate-ra-2025a10008lj
- https://www.endocrinologyadvisor.com/news/glp-1-ras-sglt2-inhibitors-may-reduce-risk-for-alzheimer-disease-dementia-in-t2dm/
- https://medicalxpress.com/news/2025-05-weight-loss-drugs-alcohol-intake.html
- https://www.medscape.com/viewarticle/malnutrition-related-diabetes-officially-named-type-5-2025a10008pd
- https://www.medscape.com/viewarticle/single-brain-mri-reveals-accelerated-aging-dementia-risk-2025a1000ido

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