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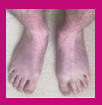
Volume 8 | Issue 3 | Sep-Oct 2023



Purplish Discoloration of the Legs: An Unusual Long-COVID Symptom - Page 4

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Health Digest

Dear Doctor,

We are proud to publish the next issue of the "Health Digest" written exclusively for medical professionals for their education and well-being.

Enjoy reading…

Editor:
Dr. Juma Venkatesh

Email:
md@glocarelabscro.com

What Is Ozempic?

Ozempic is an FDA-approved prescription medication for the treatment of type 2 diabetes in adults. It helps improve blood sugar in adults with type 2 diabetes and is proven to lower hemoglobin A1C, a measure of blood glucose over time, according to research cited on Ozempic's site. It also helps adults with type 2 diabetes and known heart disease lower their risk for cardiovascular events like stroke or heart attack.

The active compound in Ozempic, semaglutide, is a glucagon-like peptide-1 (GLP-1) receptor agonist. It works by activating GLP-1 receptors throughout the body and enhancing the effects of the naturally occurring hormone GLP-1.

"GLP-1 serves multiple key functions in the body,"It boosts the release of insulin by the pancreas in response to food intake, which helps to control blood sugar. Likewise, it reduces the release of glucagon-a hormone that increases blood glucose-thereby also helping to control blood sugar."

Ozempic is a once-weekly self-administered injection of semaglutide. It comes in 0.5 milligrams, 1 milligram or 2 milligram dosages.

How Does Ozempic for Weight Loss Work?

While Ozempic is not specifically labeled as a weight loss drug, studies

1 Ozempic For Weight Loss: Side Effects, Risks and More

sponsored by Novo Nordisk, the company that makes Ozempic, suggest people who take semaglutide-the active compound in Ozempic-may lose weight. **In fact, the FDA approved semaglutide for weight loss in 2021 under the brand name Wegovy.** However, Wegovy provides a higher dose of semaglutide than Ozempic-2.4 milligrams of semaglutide in Wegovy compared with 0.5 milligrams, 1 milligram or 2 milligrams of semaglutide in Ozempic.

As a GLP-1 receptor agonist, semaglutide enhances the effects of the naturally occurring hormone GLP-1 , GLP-1 also impacts weight via two key mechanisms:

- Affects the hunger centers in the brain (specifically, in the hypothalamus), reducing hunger, appetite and cravings
- Slows the rate of stomach emptying, effectively prolonging fullness and satiety after meals

"The net result is decreased hunger, prolonged fullness and ultimately weight loss,"

While taking semaglutide may help you lose weight while you are on the drug, most people will regain much of that weight if they discontinue using it. "Studies show that stopping Ozempic completely will likely lead to regaining most of the weight lost within several months

Is Ozempic Safe?

"Ozempic is a safe medication with a variety of benefits," Approximately 80% of patients with type 2 diabetes also have concurrent obesity. So, these patients garner dual benefit for the treatment of their diabetes and obesity."

Ozempic has also been shown to reduce major adverse coronary events, including heart attacks and strokes, and offers a host of other benefits.

However, Ozempic isn't safe for everyone. People with the following conditions should avoid using Ozempic:

- Pancreatitis
- Type 1 diabetes
- Under 18 years of age
- Pregnant or breastfeeding
- Diabetic retinopathy
- Problems with the pancreas or kidneys
- Family history of medullary thyroid carcinoma (MTC)
- Multiple Endocrine Neoplasia syndrome type 2 (MEN 2), an endocrine system condition

Common Side Effects of Ozempic

*The most common side effects are gastrointestinal in nature: nausea, vomiting, diarrhea and constipation

Taking Ozempic may cause other less common, but more serious, side effects, according to the company. These include:

- Pancreatitis (inflammation of the pancreas)
- Vision changes
- Hypoglycemia (low blood sugar)
- Kidney problems
- Allergic reactions
- Gallbladder problems
- Thyroid tumors or cancer

Why subject your patients to the of risk adverse effects like Thyroid cancer, Pancreatitis, Gastric palsy ?

Prescribe Orlislim for safe and effective weight loss

Abstract

BACKGROUND

The role of glucocorticoids without surgical evacuation in the treatment of chronic subdural hematoma is unclear.

METHODS

In this multicenter, open-label, controlled, noninferiority trial, we randomly assigned symptomatic patients with chronic subdural hematoma in a 1:1 ratio to a 19-day tapering course of dexamethasone or to burr-hole drainage. The primary end point was the functional outcome at 3 months after randomization, as assessed by the score on the modified Rankin scale (range, 0 [no symptoms] to 6 [death]). Noninferiority was defined by a lower limit of the 95% confidence interval of the odds ratio for a better functional outcome with dexamethasone than with surgery of 0.9 or more. Secondary end points included scores on the Markwalder Grading Scale of symptom severity and on the Extended Glasgow Outcome Scale.

CONCLUSIONS

In a trial that involved patients with chronic subdural hematoma and that was stopped early, dexamethasone treatment was not found to be noninferior to burr-hole drainage with respect to functional outcomes and was associated with more complications and a greater likelihood of later surgery.

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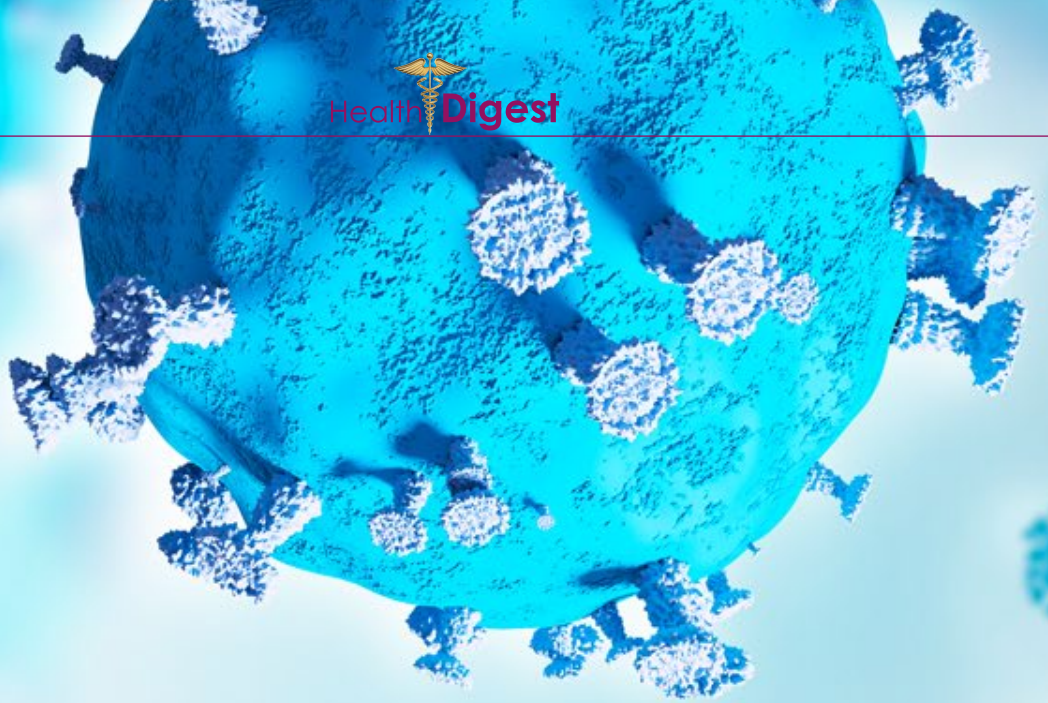
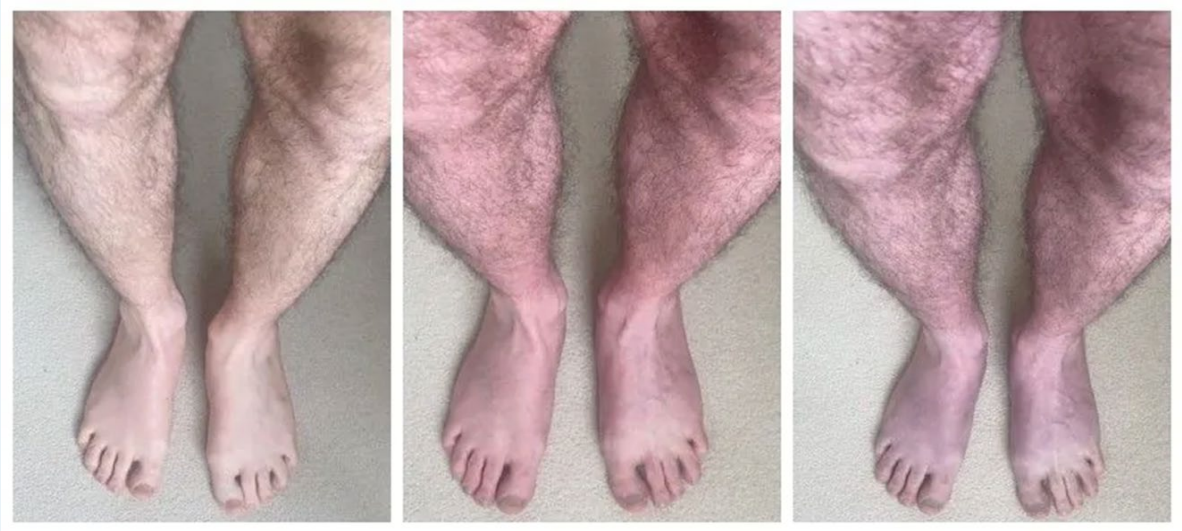
Dexamethasone versus Surgery for Chronic Subdural Hematoma.



3 Purplish Discoloration of the Legs: An Unusual Long-COVID Symptom



The Lancet's Clinical Picture published a paper in August detailing a rare case of a 33-year-old man in the United Kingdom with long COVID who developed a peculiar bluish discoloration in his legs. The case report has since raised concerns over unknown symptoms of the disease.

History:

About six months ago, the individual noticed that after a minute of standing, his legs would start to darken and progressively turn purple, and his veins became more prominent. After about 10 minutes, the discoloration became even more pronounced. According to the patient, his legs would feel heavy, tingly, and itchy. However, upon lying down, his leg color would return to normal, and the other symptoms would subside.

The patient had previously contracted COVID-19 twice.

-In the year following his recovery, he grappled with unrelenting, treatment-resistant insomnia and fatigue.

-Other symptoms included muscle pain, sleep disruptions, visual challenges, sexual dysfunction, and brain fog.

-Two months before the case report, he was diagnosed with postural orthostatic tachycardia syndrome (POTS), characterized by an abnormal increase in heart rate upon standing, while blood pressure remained unchanged.

- Patients with POTS may experience symptoms such as dizziness or lightheadedness, heart palpitations or chest pain, shortness of breath or fainting, shaking and sweating, digestive issues, headaches, vision problems, and purple discoloration in the hands and feet, fatigue, and brain fog.

Prior to contracting COVID-19, this patient's medical history included irritable bowel syndrome diagnosed at the age of 18, pelvic pain since 21, attention-deficit hyperactivity disorder (ADHD), and joint hypermobility at 31.

Considering the patient's medical history and clinical indicators, the diagnosis pointed toward secondary autonomic dysfunction associated with SARS-CoV-2 infection and linked to long COVID. The discoloration of the legs is attributed to venous stasis and skin ischemia..

Long COVID is a multisystem syndrome with a range of symptoms that can affect patients' quality of life.

In addition to the common symptoms of long COVID, there have been over 200 symptoms of long COVID reported.

Increasing evidence suggests a connection between long COVID and POTS, as well as autonomic dysfunction..

A study conducted in Spain in 2022 indicated that 2.5 percent of patients with long COVID would experience late dysautonomia (autonomic dysfunction), with POTS being a more common autonomic phenotype among these patients.

Methods for Alleviating POTS Symptoms

-The paper suggested increasing fluid and salt intake for this patient, along with engaging in muscle-strengthening exercises.

-The results revealed that compared to a low-sodium diet, a high-sodium diet led to an increase in blood volume, a decrease in standing heart rate variability, and a reduction in plasma norepinephrine levels. Moreover, patients on the high-sodium diet experienced significant improvements in their well-being, including reduced lightheadedness and relief from headaches.

POTS can lead to sleep disruption; therefore, it is crucial to focus on sleep management. The Cleveland Clinic recommends raising the head of one's bed by 6 to 10 inches to help alleviate symptoms. Additionally, it suggests establishing a consistent sleep schedule, avoiding excessive daytime napping, and refraining from excessive television viewing or using a smartphone or computer in bed, as these electronic devices can impact sleep quality.

Diet and nutrition are other crucial aspects for improving POTS. Doctors advise developing the following habits:

- Increase daily sodium intake from 3,000 milligrams to 10,000 milligrams.
- Consume 2 to 2.5 liters of water per day.
- Opt for frequent and smaller meals.
- Follow a diet rich in fiber and complex carbohydrates to help reduce blood sugar spikes and alleviate symptoms.
- Maintain nutritional balance with protein, vegetables, dairy products and fruits.

4 Effect of Dapagliflozin on Total Heart Failure Events in Patients With Heart Failure With Mildly Reduced or Preserved Ejection Fraction

Original Investigation

April 26, 2023

Effect of Dapagliflozin on Total Heart Failure Events in Patients With Heart Failure With Mildly Reduced or Preserved Ejection Fraction

Key Points

Question Does dapagliflozin reduce the risk of total episodes of worsening heart failure (HF; defined as hospitalization for HF or urgent HF visit requiring intravenous HF therapies) and cardiovascular death in patients with mildly reduced or preserved ejection fraction heart failure?

Findings In this prespecified analysis of the DELIVER trial including 6263 patients, dapagliflozin reduced the risk of total HF events and cardiovascular death by 23%, and this was consistent across a range of subgroups, including across the spectrum of ejection fraction.

Abstract

Importance In the Dapagliflozin Evaluation to Improve the Lives of Patients With Preserved Ejection Fraction Heart Failure (DELIVER) trial, dapagliflozin reduced the risk of time to first worsening heart failure (HF) event or cardiovascular death in patients with HF with mildly reduced or preserved ejection fraction (EF).

Objective To evaluate the effect of dapagliflozin on total (ie, first and recurrent) HF events and cardiovascular death in this population.

Interventions Dapagliflozin, 10 mg, once daily or matching placebo.

Main Outcomes and Measures The outcome was total episodes of worsening HF (hospitalization for HF or urgent HF visit requiring intravenous HF therapies) and cardiovascular death.

Conclusions and Relevance In the DELIVER trial, dapagliflozin reduced the rate of total HF events (first and subsequent HF

hospitalizations and urgent HF visits) and cardiovascular death regardless of patient characteristics, including EF.

Introduction

Patients with heart failure (HF) are frequently hospitalized for decompensation of HF. While the risk of death declines as ejection fraction (EF) increases, the risk of hospitalization for HF remains relatively static across the spectrum of EF.1 Therefore, repeated hospitalizations account for a greater proportion of the burden of disease in patients with HF with mildly reduced EF (HFmrEF) or HF with preserved EF (HFpEF) compared with HF with reduced EF (HFrEF). These repeated hospitalizations are the major driver of the burden of HF on patients and health care systems. In HFmrEF and HFpEF, as with HFrEF, these repeated hospitalizations are also associated with a higher subsequent risk of death.2 The gradient of risk is linear; as the number of repeated hospitalizations increases, the subsequent risk of both cardiovascular and all-cause mortality also increases.3

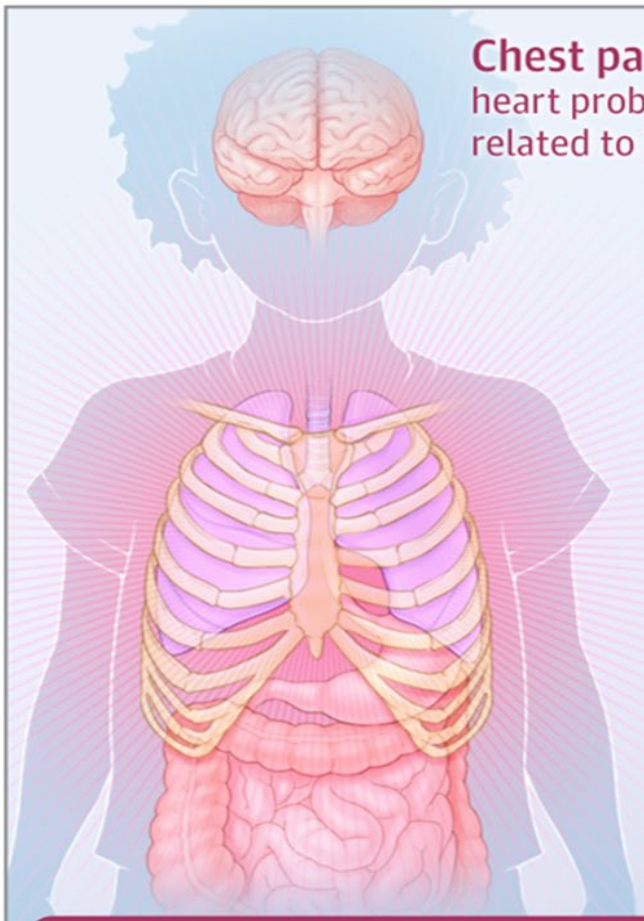
Study Patients

Patients were enrolled if they had HF with a left ventricular EF (LVEF) greater than 40%, 40 years or older, HF of NYHA class II to IV, had an elevated N-terminal pro–B-type natriuretic peptide (NT-proBNP) level of 300 pg/mL or greater (greater than 600 pg/mL if atrial fibrillation was present on electrocardiography at enrollment), and who were receiving usual therapy. Patients who were hospitalized or were within 30 days of hospitalization for HF and patients ambulant in the community were eligible for enrollment

Conclusions

In summary, among patients with HFmrEF or HFpEF, dapagliflozin reduced the risk of total (first and recurrent) HF events or cardiovascular deaths compared with placebo. HF events are common and preventable, and the efficacy of dapagliflozin in reducing the number of these events is consistent across a broad range of subgroups and across the spectrum of EF.

5 CHEST PAIN IN CHILDREN



Chest pain in children is rarely caused by heart problems, but there are common causes related to issues in other systems in the body.

Psychogenic
Related to the mind (eg, anxiety)

Musculoskeletal
Related to muscles, bones, and joints (eg, chest wall inflammation)

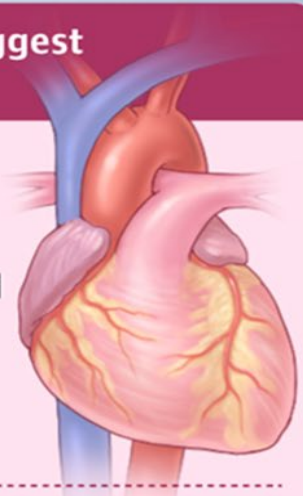
Respiratory
Related to the airways and lungs (eg, asthma)

Gastrointestinal
Related to the esophagus, stomach, and intestines (eg, acid reflux)

Idiopathic
Related to an unknown cause

There are certain characteristics that may suggest chest pain in children is heart related

- Exercise that gets better with rest
- Trouble breathing
- Getting tired easily
- Chest pressure
- Passing out or nearly passing out
- History of heart problems at birth or during childhood
- A family member died suddenly or had heart problems in childhood
- Abnormal physical examination including heart murmur
- Abnormal electrocardiogram



Children with these symptoms are referred to a pediatric cardiologist for a full evaluation to rule out any heart conditions including myocarditis, arrhythmia, coronary artery disease, and cardiomyopathy.

Parents often worry when their child has any pain in their chest.

While chest pain in adults is frequently caused by serious cardiovascular problems, chest pain in children is often innocent. Research shows less than 1% of chest pain in children stems from the heart itself.

For children with chest pain, pediatric clinicians will take a full history, collect vital signs, and perform a physical examination. Your child may need testing, including a chest radiograph to see inside the chest and an electrocardiogram to look at the heart rhythm. Blood work may also be needed.

Common causes for a child's chest pain that does not stem from the heart can be split into several groups: (1) musculoskeletal, relating to the muscles, bones, and joints (eg, slipping rib syndrome and chest wall inflammation); (2) respiratory, relating to the airways and lungs (eg, asthma and pneumonia); (3) gastrointestinal, relating to the esophagus, stomach, and intestines (eg, acid reflux); (4) psychogenic, relating to the mind (eg, anxiety and panic attacks); and (5) idiopathic, relating to an unknown cause..

Features of chest pain in children that may suggest a heart-related cause include chest pain with (1) exercise that gets better with rest; (2) trouble breathing, getting tired easily, and/or chest pressure; (3) passing out or nearly passing out; (4) a history of heart problems at birth or during childhood; (5) a family member who died suddenly or had heart problems in childhood; (6) an abnormal physical examination result, such as a heart murmur; and (7) an abnormal electrocardiogram result.

6 SGLT2 inhibitors and their association with balanoposthitis and Fournier's gangrene

*Sodium–glucose cotransporter-2 (SGLT2) inhibitors are associated with an increased risk of serious urinary tract infections, genital fungal infections and balanitis, which are all risk factors for Fournier's gangrene

*When balanitis (inflammation of the glans penis) and posthitis (inflammation of the prepuce) occur together, the condition is referred to as balanoposthitis.

*This condition can also arise from bacterial infections (including those involving anaerobic bacteria), viral infections, parasites and sexually transmitted infections. Non-infectious inflammatory causes are lichen planus, psoriasis and contact dermatitis.

***Fournier's gangrene** is a rare, aggressive and life-threatening necrotising fasciitis of the external genitalia, perineum and perianal region. It is much more common in men than in women and diabetes is a predisposing factor.

* The patient may present with symptoms of tenderness, redness or swelling of the genitals or perineum, and a fever. In its early stage, the severe pain being experienced may seem out of proportion with the findings on physical examination. The condition deteriorates rapidly.

In addition to a complete skin examination, a thorough patient history with respect to the patient's sexual background and any application of topically applied products is essential. This will indicate any predisposing causes, such as balanitis, which are common in people with diabetes.

Prevention

To reduce the risk of infections of the glans penis, provide hygiene advice on rinsing the genital area after every void and before going to bed. One study showed that receiving this advice significantly reduced the risk of genital fungal infections and, ultimately, balanoposthitis compared to those that did not

When infections do occur, they must be treated and the glans penis kept dry. As a last resort, therapeutic circumcision can be considered for most forms of chronic balanitis.

Management

Balanoposthitis can progress rapidly to Fournier's gangrene. The best management outcome of Fournier's gangrene is to save the patient and minimise sexual and urinary dysfunction.

If Fournier's gangrene is suspected, aim for hospital admission immediately.

Prompt treatment with broad-spectrum antibiotics and urgent, aggressive surgical debridement of all necrotic tissue is the definitive treatment. Patients undergoing surgery within 24 hours of admission have an improved survival rate compared to those in whom surgery is delayed

Although pus may be nearly absent, wounds can discharge copious amount of tissue fluid. Antibiotic treatment without surgical intervention leads to progressive sepsis. SGLT2 inhibitor therapy must be discontinued, blood glucose levels monitored closely and alternative therapy for glycaemic control provided.

7 Gestational Diabetes and Long-Term Cardiometabolic Health

Gestational diabetes mellitus (GDM) (ie, hyperglycemia first diagnosed during pregnancy) is associated with increased risk of adverse perinatal outcomes.

GDM is associated with cardiometabolic disease including type 2 diabetes (T2D) and cardiovascular disease (CVD) in the affected pregnant individual and the exposed fetus.

There is a continuous, dose-dependent association between hyperglycemia and adverse pregnancy outcomes, including primary cesarean delivery, preterm birth, hypertensive disorders of pregnancy, and clinically relevant infant outcomes associated with pregnancy hyperglycemia (including large-for-gestational-age or birth weight ≥90th percentile, hyperbilirubinemia, hypoglycemia, and need for neonatal intensive care).

The exact criteria used for GDM diagnosis varies across the world. In the US, universal screening with a 2-step procedure is most common, and the Carpenter-Coustan criteria are most commonly applied to a 3-hour fasting oral glucose tolerance test for diagnosis. Globally, screening with a 1-step procedure is recommended, and the International Association of the Diabetes and Pregnancy Study Groups (IADPSG) criteria are most commonly applied to a 2-hour fasting oral glucose tolerance test. Hemoglobin A1c cannot be used for diagnosis.

Antepartum treatment is recommended to lower glucose levels and reduce the risk of adverse pregnancy outcomes. Diet and physical activity are recommended as first-line therapy, but at least 1 in 4 individuals will require pharmacotherapy. Although insulin is preferred, metformin is frequently used. Treatment has been shown to reduce the immediate risk of adverse pregnancy outcomes for the pregnant individual and infant. However, intervention after delivery may also be needed to reduce the long-term risks of T2D and CVD for both individuals. Therefore, diagnosis offers an opportunity to identify and treat individuals who are at increased lifetime risk of adverse cardiometabolic health.

Promotion of Glycemic Health After GDM:

Up to half of pregnant individuals with GDM will develop prediabetes or T2D postpartum.

GDM is associated with an approximate 10-fold higher lifetime risk of T2D. This association has been repeatedly demonstrated, regardless of the criteria used for GDM diagnosis. The Hyperglycemia and Adverse Pregnancy Outcomes Follow-up Study (HAPO FUS) demonstrated the association between GDM (diagnosed using IADPSG criteria) and the risk of prediabetes and T2D at 10 to 14 years after delivery. The epidemiologic link between GDM and T2D likely represents the shared manifestation of pancreatic □-cell dysfunction in individuals with GDM during and outside of pregnancy. Over time, progressive metabolic deterioration drives the progression from normal glucose tolerance to diabetes.

Given the well-established higher risk of T2D after GDM, professional guidelines from the American Diabetes Association and American College of Obstetricians and Gynecologists recommend that all individuals with recent GDM undergo glucose tolerance testing with a 75-g oral glucose tolerance test (OGTT) at 4 to 12 weeks postpartum.

However, the rate of postpartum OGTT screening has remained suboptimal (<50%). Reasons for suboptimal screening include clinician nonadherence (test was not ordered), lack of patient follow-up for postpartum care, patient burden associated with a fasting 2-hour laboratory procedure, and patient difficulty with accessing care while caring for an infant. Interventions to address the low rate of postpartum screening have included electronic patient reminders, automated order sets in the electronic health record, and

moving the timing of screening to the delivery hospitalization. Implementation of postpartum screening and follow-up is key, and new approaches to postpartum screening that do not require lengthy and fasting laboratory procedures are needed.

Lactation, weight loss, exercise, and pharmacotherapy may reduce the risk of T2D after a pregnancy complicated by GDM.

Higher intensity and longer duration of lactation during the first 2 years is consistently associated with a reduced risk of T2D in observational studies.

Effective lifestyle interventions to prevent T2D delivered over a period of 1 to 3 years postpartum include dietary counseling and monitored exercise.

These interventions likely reduce insulin resistance through weight loss and physical activity, which lowers the secretory demands on β-cells.

Data from the Diabetes Prevention Program (DPP) demonstrated that for individuals with prediabetes and a history of GDM (12 years prior on average), metformin use was equivalent to lifestyle modification-both equally reduced the risk of T2D by 50% compared with placebo, and this risk reduction persisted for 15 years. The findings from the DPP suggest that metformin may be particularly efficacious for diabetes prevention in parous individuals with prediabetes and a history of GDM.

Promotion of Cardiovascular Health After GDM:

Individuals with GDM have more CVD risk factors than those without GDM, including hypertension and dyslipidemia. These CVD risk factors are frequently present prior to pregnancy as suboptimal prepregnancy cardiovascular health is associated with GDM risk. Universal GDM screening may result in identification of dysglycemia during pregnancy that may not have been recognized outside of pregnancy. Therefore, GDM may represent unmasking of both metabolic and CVD risk that is present before pregnancy.

The increased risk of CVD associated with GDM may be due to clustering of CVD risk factors in individuals with GDM, including overweight/ obesity, dyslipidemia, and hypertension.

Risk of Adverse Child Outcomes:

Maternal dysglycemia and consequent fetal hyperinsulinism results in accelerated fetal growth and accumulation of adipose tissue resulting in higher birth weight. These developmental adaptations in response to GDM may be further affected by adverse social determinants of health and lifestyle factors in the child's environment. The risk of adverse developmental programming extends beyond suboptimal birth outcomes (eg, large-for-gestational-age and neonatal hypoglycemia), and includes associations with a higher risk of T2D and CVD risk factors in the child, including, obesity, dyslipidemia, and hypertension.

Female individuals exposed in utero to GDM are at higher risk of developing GDM.

Whether better management of maternal hyperglycemia in pregnancy can mitigate or prevent the higher risk of cardiometabolic disease across generations is a key priority area for further investigation.

Summarised / Edited for Internal Circulation:
GLOCARE LABS PVT LTD
Clinical Research Organisation

CLINICAL & BIOANALYTICAL UNIT:
2A, Ganga Nagar, 4th Street, Kodambakkam, Chennai - 600 024, INDIA.
Tel: +91-44-24726001 | Fax: +91-44-24726002 | Ph: +91-44-4857 3985
Email: md@glocarelabscro.com | Website: www.glocarelabscro.com