

Name of Journal: *World Journal of Diabetes*

Manuscript NO: 63466

Manuscript Type: MINIREVIEWS

Current progress in metabolomics of gestational diabetes mellitus

Progress in metabolomics of GDM

Qian-Yi Wang, Liang-Hui You, Lan-Lan Xiang, Yi-Tian Zhu, Yu Zeng

Abstract

⁶ Gestational diabetes mellitus (GDM) is one of the most common metabolic disorders of pregnancy and can cause ²⁶ short- and long-term adverse effects in both pregnant women and their offspring. However, the etiology and pathogenesis of GDM are still unclear. As a metabolic disease, GDM is well suited to metabolomics study, which can real-time monitor the changes in small molecular metabolites induced by maternal

Match Overview

1	Internet 229 words crawled on 05-Jun-2020 journals.plos.org	4%
2	Crossref 213 words Malgorzata Bukowiecka-Matusiak, Izabela Burzynska-Pe dziwiatr, Anna Sansone, Beata Malachowska et al. "Lipi ...	3%
3	Internet 173 words crawled on 26-May-2021 academic.oup.com	3%
4	Crossref 172 words Kati Makkala, Tero Vahlberg, Noora Houttu, Ella Koivun mi, Kirsi Laitinen. "Distinct Metabolomic Profile Because ...	3%
5	Crossref 106 words Hongzhi Zhao, Han Li, Arthur Chi Kong Chung, Li Xiang e t al. "Large-Scale Longitudinal Metabolomics Study Reve	2%
6	Internet 88 words crawled on 05-Apr-2021 www.hindawi.com	1%
7	Internet 54 words crawled on 02-Nov-2019 www.nature.com	1%
8	Crossref 51 words Melanie T. Odenkirk, Kelly G. Stratton, Marina A. Gritsenk o, Lisa M. Bramer et al. "Unveiling molecular signatures o	1%

国内版国际版

Microsoft Bing

Current progress in metabolomics of gestational diabetes mellitus

Sign in

ALLIMAGESVIDEOS

396,000 ResultsAny time

Women with a history of gestational diabetes mellitus (GDM) have a 7-fold higher risk of developing type 2 diabetes (T2D) later in life, and an estimated **35%–50% of GDM cases will progress to T2D within 10 years postpartum**. Biological pathways and metabolites influencing progression from GDM to T2D have not been elucidated in humans.

Cited by: 6

Publish Year: 2020

Amino acid and lipid metabolism in post-gestational ...
journals.plos.org/plosmedicine/article?id=10.1371%2Fjournal.pmed.1003112

Was this helpful?

Metabolomics of Diabetes in Pregnancy

https://pubmed.ncbi.nlm.nih.gov/28646358

Purpose of review: The purpose of this review is to describe ways in which **metabolomics** may enhance understanding of **gestational diabetes mellitus** (GDM) etiology and refine **current** diagnostic criteria....

Cited by: 17

Author: Carolyn F. McCabe, Wei Perng

Publish Year: 2017

Metabolomic Biomarkers in Gestational Diabetes Mellitus: A ...

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8197243

Gestational diabetes mellitus (GDM) is a common pregnancy complication, characterised by carbohydrate intolerance with onset or first recognition during pregnancy. It develops during pregnancy i...

Comprehensive analysis of serum metabolites in gestational ...

https://pubmed.ncbi.nlm.nih.gov/26677023

Gestational diabetes mellitus (GDM) refers to the first sign or onset of **diabetes mellitus** during pregnancy rather than progestation. In recent decades, more and more research has focused on the...

Cited by: 30

Author: Tianhu Liu, Jiaxun Li, Fengcheng Xu, Meng...

Publish Year: 2016

A systematic review of metabolite profiling in gestational ...

https://pubmed.ncbi.nlm.nih.gov/25193282

Aims/hypothesis: **Gestational diabetes mellitus** is associated with adverse maternal and fetal outcomes during, as well as subsequent to, pregnancy, including increased risk of type 2 **diabetes** and...

Cited by: 82

Author: Jennifer Huynh, Grace Xiong, Rhonda Bentl...

Publish Year: 2014

Metabolomic profiling of women with gestational diabetes ...

https://www.sciencedirect.com/science/article/pii/S1056872717316562

May 01, 2018 · 1. Introduction. **Gestational diabetes mellitus** (GDM), one of most common pregnancy complications, is defined as any degree of glucose intolerance with onset or first recognition during...

Cited by: 24

Author: Qian Chen, Qian Chen, Ellen Francis, Gang ...

Publish Year: 2018

Metabolomics of Diabetes in Pregnancy | SpringerLink

https://link.springer.com/article/10.1007/s11892-017-0890-3

Jun 23, 2017 · The purpose of this review is to describe ways in which **metabolomics** may enhance understanding of **gestational diabetes mellitus** (GDM) etiology and refine **current** diagnostic criteria....

Cited by: 17

Author: Carolyn F. McCabe, Wei Perng

Publish Year: 2017

Estimated Reading Time: 4 mins

Metabolomic Biomarkers in Gestational Diabetes Mellitus: A ...

https://europepmc.org/article/PMC/PMC8197243

May 24, 2021 · 2.1. Risk Factors for **Gestational Diabetes**. Epidemiological studies have outlined several risk factors for GDM, but these data are observational in nature and affected by residual confounding...

Metabolomic Biomarkers in Gestational Diabetes Mellitus: A ...

https://www.mdpi.com/1422-0067/22/11/5512

Gestational diabetes mellitus (GDM) is the fastest growing type of **diabetes**, affecting between 2 to 38% of pregnancies worldwide, varying considerably depending on diagnostic criteria used and sample...

Research progress on etiology of gestational diabetes mellitus

https://www.sciencedirect.com/science/article/pii/S2414644719301794

Dec 01, 2018 · Abstract. As a metabolic disorder during pregnancy, **gestational diabetes mellitus** (GDM) has an important effects on fetal development, neonatal health and maternal long-term health, and is on...

Author: Jiayue Zhang, Shujuan Ma, Chuhao Guo...

Publish Year: 2018

12345>

Add the Give with Bing extension >

Make a difference for a nonprofit, simply by searching on Bing

MAYBE LATER

YES

Gestational Diabetes

Medical Condition

A condition in which women develop diabetes (high blood sugar) during pregnancy. Initially, it may not cause any symptoms. Excessive thirst, sweating and frequent urination may be noticed as it progresses.

Common (More than 200,000 cases per year in US)

Rarely requires lab test or imaging

Treatable by a medical professional

Can last several months or years

Hormonal variations during pregnancy is one of the major cause. Overweight and fatigue are a few early symptoms. It can be managed with nutritious diet and exercise. Medication is necessary only if sugar level is uncontrollable with diet and exercise.

Symptoms

This condition shows no or almost negligible symptoms in many women. For some the symptoms may include:

Increased thirst

Frequent urination

Excessive sweating

Overweight

Fatigue

Treatments

It can be managed with nutritious diet and exercise. Medication is necessary only if sugar level is uncontrollable with diet and exercise.

Medication

• Hormonal therapy: To regulate blood glucose levels. The most recommended is insulin injection.
Insulin

• Antidiabetics: To control the amount of blood glucose level. During pregnancy, the first choice would be Insulin injection, however, the recent studies have shown that the oral medications may be safe. Follow your doctor's advice.
Metformin · Glyburide

Self care

• Monitoring the level of blood sugar at regular intervals will help regulating and avoid complications.

• Intake of Healthy diet- consult the doctor to recommend a healthy diet which suits.

• Regular Exercise - Regular, simple exercise helps lowering blood sugar level and provide more energy. It also relives common symptoms during pregnancy like low back pain, constipation, swelling of legs, etc.

• Close monitoring of the baby- a close monitoring on the developments of the baby is also essential and hence advised repeated ultrasound tests.

People also search for

Diabetes

Type 2 Diabetes

Type 1 diabetes

Pre-eclampsia

Diabetic Ketoacidosis

See more

Data from Focus Medica. Reviewed by a panel of doctors.Learn more

Consult a medical professional for advice

Suggest an edit

Search Tools

Turn off Hover Translation (关闭取词)

增值电信业务经营许可证：合字B2-20090007 京ICP备10036305号-7 京公网安备11010802022657号

Privacy and Cookies

Legal

Advertise

© 2021 Microsoft

HelpFeedback

103,000 Results Any time

Metabolomics of Diabetes in Pregnancy

<https://pubmed.ncbi.nlm.nih.gov/28646358>

Purpose of review: The purpose of this review is to describe ways in which **metabolomics** may enhance understanding of **gestational diabetes mellitus** (GDM) etiology and refine **current** diagnostic criteria. Recent findings: **Current** clinical recommendations suggest screening for GDM between 24 and 28 of **gestational** weeks using an oral glucose tolerance test.

Cited by: 18 Author: Carolyn F. McCabe, Wei Perng
Publish Year: 2017

Comprehensive analysis of serum metabolites in gestational ...

<https://pubmed.ncbi.nlm.nih.gov/26677023>

Gestational diabetes mellitus (GDM) refers to the first sign or onset of **diabetes mellitus** during pregnancy rather than progestation. In recent decades, more and more research has focused on the etiology and pathogenesis of GDM in order to further understand GDM **progress** and ...

Cited by: 31 Author: Tianhu Liu, Jiaxun Li, Fengcheng Xu, Meng...
Publish Year: 2016

PEOPLE ALSO ASK

- What is gestational diabetes mellitus (GDM) in pregnancy?
- Are there new insights into gestational glucose metabolism?
- How is serum metabonomics study of pregnant women with GDM?
- How does gestational diabetes affect women of all races?

Feedback

Metabolomic Biomarkers in Gestational Diabetes Mellitus: A ...

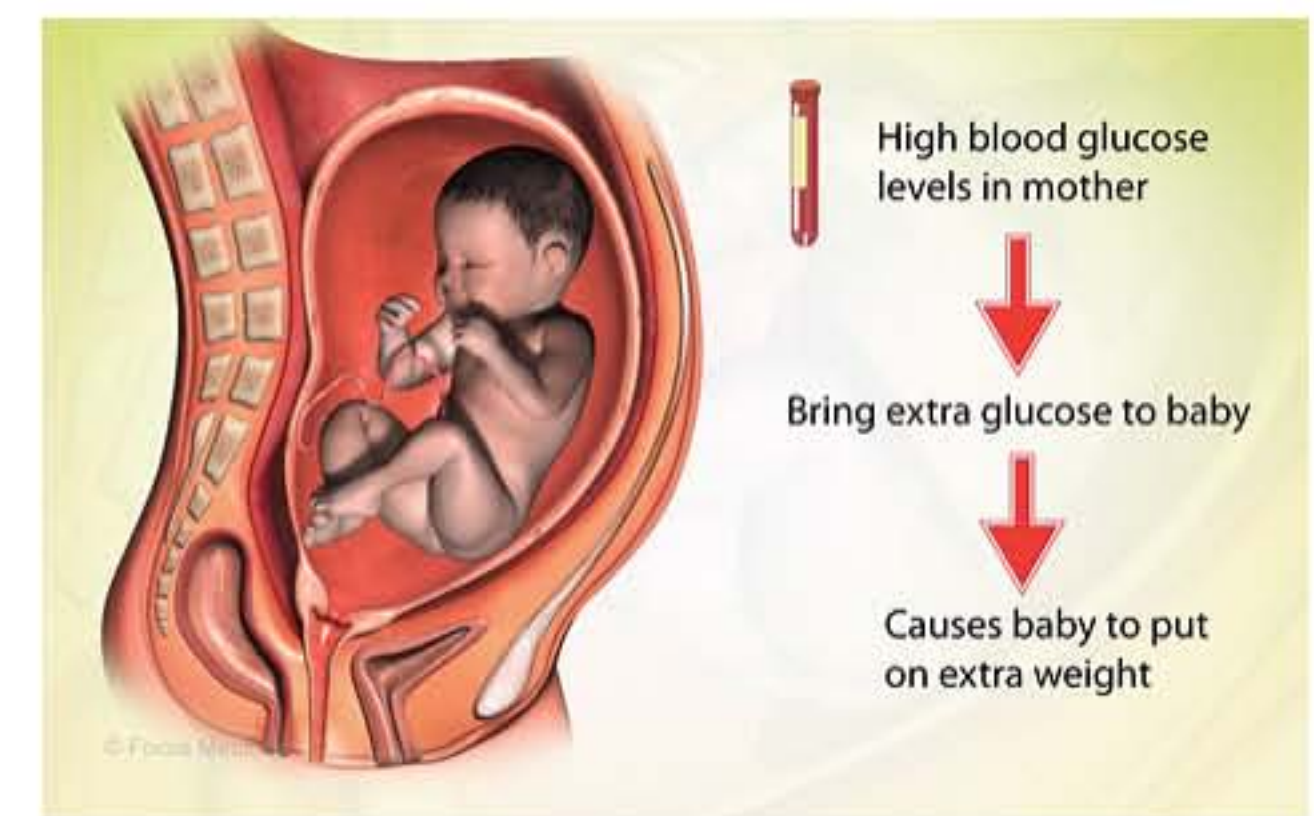
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8197243>

Gestational diabetes mellitus (GDM) is a common pregnancy complication, characterised by carbohydrate intolerance with onset or first recognition during pregnancy. It develops during pregnancy in women whose pancreatic function is insufficient to overcome the insulin resistance associated with the pregnant state, resulting in hyperglycaemia

*编辑稿件文件命名(1) - 记事本

Gestational Diabetes

Medical Condition



A condition in which women develop diabetes (high blood sugar) during pregnancy. Initially, it may not cause any symptoms. Excessive thirst, sweating and frequent urination may be noticed as it progresses.

- Common (More than 200,000 cases per year in US)
- Rarely requires lab test or imaging
- Treatable by a medical professional
- Can last several months or years

Hormonal variations during pregnancy is one of the major cause. Overweight and fatigue are a few early symptoms. It can be managed with nutritious diet and exercise. Medication is necessary only if sugar level is uncontrollable with diet and exercise.

Symptoms

This condition shows no or almost negligible symptoms in many women. For some the symptoms may include:

- Increased thirst