v. 2, n. 20, 2022

International Journal of Health Science

GESTATIONAL DIABETES MELLITUS: A SILENT AND GROWING PROBLEM IN BRAZIL'S HEALTH - A LITERATURE RESCUE

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Abstract: Introduction: Gestational Diabetes Mellitus (GDM) is the most common metabolic disorder in the pregnancy cycle. In recent years, the number of cases has increased, mainly due to the increase in obesity. **Goal:** Discuss in the light of the literature on the topic of Gestational Diabetes in Brazilian women from 2019 to 2021. **Methodology:** The present study carries out an exploratory bibliographic research on Scielo platforms; Virtual Health Library and the Report on Screening and Diagnosis of Gestational Diabetes Mellitus in Brazil; in addition to databases such as Associação Brazileira de Diabetes in a period of 3 years, between 2019 and 2021. As inclusion criteria, articles in Portuguese, published between 2019 and 2021 were used. The exclusion criteria were English language, dissertations and TCCs. 16 articles were located, and after analysis, 13 were excluded, finally, the study consisted of 3 publications. **Result:** Of the studies surveyed, the largest number were those from the year 2019, totaling 10 (63%); followed by 2019, totaling 04 (25%). The others dated from 2020 and 2021, 01 (6%) in each year. However, only 3 (18.7%) referred to the importance of the topic addressed, therefore, used. GDM is understood as the inability of the maternal body to secrete insulin at levels necessary to meet the needs of the pregnancy-puerperal cycle. GDM is liable to develop in any woman, but it is common in those with risk factors such as advanced age, a history of gestational diabetes, polycystic ovary syndrome or obesity. It can cause complications such as preeclampsia, preterm birth, macrosomia, fetal malformations and fetal death. According to the class, DMG can be controlled only with lifestyle change (SEM). **Conclusion:** GDM, a relevant public health problem, is influenced by several factors. However, the cases can decrease when associating an adequate work of the multiprofessional team in the prenatal and SEM follow-up.

Keywords: Gestational diabetes mellitus, Gestation, Macrosomia.

INTRODUCTION

Gestational diabetes mellitus (GDM) is defined by the World Health Organization (WHO) as an intolerance to carbohydrates of varying severity, which begins during the current pregnancy and does not meet the diagnostic criteria for overt diabetes mellitus. (BRAZIL, 2020) It is the most common metabolic problem in the pregnancy and has a prevalence in 3 to 25% of pregnancies, depending on the ethnic group, population and diagnostic criteria used. (BRAZIL, 2020).

According to the Ministry of Health (2021), the association of hyperglycemia with pregnancy mainly distinguishes three categories of patients: (i) patients with type 1 (DM1) and type 2 (DM2) diabetes, diagnosed before pregnancy, known as previous DM ; (ii) women diagnosed with diabetes mellitus during pregnancy, but whose blood glucose levels meet the World Health Organization (WHO) criteria for the diagnosis of non-gestational diabetes (diabetes diagnosed during pregnancy); (iii) women with gestational diabetes mellitus (GDM), who are patients whose blood glucose levels do not meet the diagnostic criteria for diabetes other than gestational diabetes.(BRAZIL, 2021).

Pregnancy is known to be characterized by a physiological state of insulin resistance, mediated primarily by the secretion of hormones from the placenta to ensure that the mother supplies adequate glucose to the fetus. The pancreas develops a state of insufficiency to increase its insulin production, resulting in maternal hyperglycemia, and triggers clinical manifestations of GDM or the diagnosis itself. (BRAZIL, 2021).

However, according to the Ministry of Health (2019) despite metabolic efforts, gestational diabetes is associated with a higher prevalence of developing fetal malformations, miscarriages and maternal complications related to hyperglycemia (such as preeclampsia, cesarean section, macrosomia, hypoglycemia). neonatal and increased C-peptide concentration in umbilical cord blood). (BRAZIL, 2019) And this risk can increase, depending on the mother's conditions before and during pregnancy. For example, the number of cases of gestational diabetes has increased in the last two decades, largely due to increasing weight and obesity, which has a prevalence of 20.8% in adults. (BRAZIL, 2019).

GOAL

To discuss in the light of the literature on the topic of Gestational Diabetes in Brazilian women from 2019 to 2021.

METHODOLOGY

The present study carries out an exploratory bibliographic research on Scielo platforms; Virtual Health Library and the Report on Screening and Diagnosis of Gestational Diabetes Mellitus in Brazil; in addition to databases such as Associação Brazileira de Diabetes in a period of 3 years, between 2019 and 2021. As inclusion criteria, articles in Portuguese, published between 2019 and 2021 were used. The exclusion criteria were English language, dissertations and TCCs. Therefore, a careful reading of the summaries of these bibliographic materials was carried out, based on the theme addressed and combinations of descriptors. 16 articles were located, and after analysis, 13 were excluded, finally, the study consisted of 3 publications.

RESULT

Of the studies surveyed, the largest number were those from the year 2019, totaling 10 (63%); followed by 2018, totaling 04 (25%). The others already dated from 2020 and 2021, 01 (6%) in each year. However, only 3 (18.7%) referred to the importance of the topic addressed, therefore, used in this publication.

Gestational diabetes mellitus (GDM) is understood as the inability of the maternal body to secrete insulin at levels necessary to meet the needs of the pregnancy-puerperal cycle. Normally, during pregnancies there are important changes in energy production and fat accumulation. Where an accumulation of adipocytes is seen, especially in early pregnancy, and also an increase in metabolic expenditure, which happens at the end of pregnancy. These range from fasting hypoglycemia and ketone body formation to progressive insulin resistance (BRAZIL, 2019).

All this is necessary to meet the demand of fetal development. Normally, from the 2nd trimester of pregnancy onwards, the development of insulin resistance is essential for the flow of energy metabolism (from the mother) from the oxidation of carbohydrates to that of lipids, causing the glucose to be supplied to the baby to be preserved. fetus. The increase in insulin secretion (about 250%) continues to compensate for the reduced sensitivity. Anti-placental insulin hormones (mainly human placental lactogen and human placental growth hormone, as well as other hyperglycemic hormones such as cortisol, estrogen, progesterone, and prolactin) are responsible for insulin resistance. It is known that approximately 80% of fetal energy expenditure occurs through glucose metabolism (BRAZIL, 2020).

The Brazilian Society of Diabetes, together with the Ministry of Health (2019), emphasize the need to differentiate the types of diabetes, as each has a different impact on the course

of pregnancy and the fetus. When comparing normal pregnancy and gestational diabetes, it is not insulin resistance that is elevated in this one, but a low production of pancreatic cells, resulting in inadequate insulin secretion, responsible for the physiological increase in gestational resistance. Diabetes before pregnancy increases the risk of serious complications, as its effect can begin at fertilization and implantation, increasing the risk of miscarriages, fetal growth retardation, and malformations (BRAZIL, 2019).

Several factors can facilitate the emergence of GDM, such as ethnicity, advanced maternal age, geographic and racial factors, in addition to arterial hypertension, polycystic ovary syndrome, family history, high body mass index, overweight and obesity. GDM can cause several complications for both the mother and the fetus, ranging from visual problems, ketoacidosis, cesarean section, neonatal hypoglycemia, premature birth, development of diabetes mellitus after pregnancy, in addition to vascular lesions in organs such as the kidneys, 2020).

The Ministry of Health recommends, for all women, to start screening at the first prenatal consultation, being repeated between the 24th and 28th week. It is important to note that the earlier the GDM screening is started, the better the outcome. The diagnosis is confirmed in two phases, the first is screening, and the second is the diagnostic confirmation itself. It can be done with Fasting Glycemia, Postprandial Glycemia and Oral Glucose Tolerance Test, which is most used during the second phase (BRAZIL, 2021).

According to the Pan American Health Organization - PAHO (2019), GDM must be within the global health priorities, as there are more and more women diagnosed with diabetes both at childbearing age and during pregnancy. Certainly factors such as physical inactivity and obesity are important, but the fact of population growth and increasing maternal age cannot be ignored. According to PAHO data, GDM has a world average of 16.2%, while in Brazil, the Unified Health System estimates a value of 18%, it is believed that one in six births is due to a pregnant woman with hyperglycemia, and that 84% of them are related to GDM.

To modify this situation, according to the class, the DMG can be controlled only with lifestyle changes (MEV) (BRAZIL, 2019). In addition, it is necessary to perform prenatal care correctly, as it is essential for the development of a healthy pregnancy, in addition to being associated with an early detection of possible complications relevant to pregnancy and thus preventing, maternal and fetal morbidity and mortality. However, considering the conditions of health care in Brazil, it is essentia that the follow-up before delivery follows the general principles of quality, according to the resources made available by the health system. (BRAZIL, 2021).

CONCLUSION

GDM is considered a relevant public health problem and is associated with a process of insulin resistance, release of diabetogenic hormones and a state of insufficiency of the pancreas. It is a condition that is influenced by several factors, such as high blood pressure, weight gain and obesity. In addition, gestational diabetes poses a risk for the development of complications not only for mothers, but also for the fetus. Therefore, it is known that pregnant women with GDM are in the risk pregnancy group. However, the cases can decrease when associating an adequate work of the multiprofessional team in the prenatal and SEM follow-up. And this assistance to the pregnant woman must be continued and must not be discontinued after

the puerperium, due to the increased chances of developing type 2 diabetes mellitus after pregnancy.

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