



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.889517>Available online at: <http://www.iajps.com>**Review Article****CONTROL AND TREATMENT OF PREGNANCY DIABETES
-A REVIEW**Morteza Salarzai¹, Fateme Parooei¹, Mahmood Anbari^{2*}¹Medical student, Student Research Committee, zabol University of Medical Sciences,
Zabol, Iran²Zabol University of Medical Sciences, Zabol, Iran**Abstract:**

Introduction: *Pregnancy is a common and prevalent medical condition in the field of carbohydrate intolerance which affects the phenomenon of pregnancy and can lead to undesirable outcomes and high-risk childbirth and affect the mother and the fetus. The most important concerns are overgrowth of the fetus, maternal damage following fetal macrosomia, as well as other fetal and maternal complications, especially preeclampsia.*

Methods: *In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the studies investigating Control and treatment of pregnancy diabetes. In this review, the papers published until early January 2017 that were conducted to study the Control and treatment of pregnancy diabetes in women were selected. In searching for the articles, those English papers were selected that had investigated Control and treatment of pregnancy diabetes.*

Results: *According to studies conducted in this area, nutritional interventions along with close monitoring of blood glucose levels are considered as a primary treatment option, and drug therapy will start in the event of a failure of dietary changes in controlling blood sugar levels.*

Discussion and conclusion: *Along with global prevalence of obesity, lifestyle has led to an increase in the weight of pregnant mothers. Obese and overweight pregnant women are at higher risk for pregnancy complications, such as gestational diabetes. Treatment for patients with gestational diabetes provides an ideal context for implementing primary interventions to prevent type 2 diabetes.*

Key words: *Pregnancy, diabetic patients, Control, treatment*

Corresponding author:

Mahmood Anbari,
Zabol University of Medical Sciences,
Zabol, Iran.
Email: mr.mortezasalar@gmail.com
Tell : +989120644917

QR code



Please cite this article in press as Mahmood Anbari *et al*, **Control and Treatment of Pregnancy Diabetes
-A Review**, *Indo Am. J. P. Sci*, 2017; 4(09).

INTRODUCTION:

Pregnancy is a critical period in which maternal health plays a vital role in the health of the baby; so underlying conditions, illness and disorders caused during pregnancy or external factors can endanger the health of the mother, the fetus or both. [1]. Some problems during pregnancy, such as the presence of pregnancy blood pressure, the incidence of childbirth bleeding, premature rupture of the embryo, early childbirth and inappropriate weight of the fetus, can lead to unpleasant outcomes [2]. The outcome of pregnancy is heavily influenced by the health of the mother and her physical condition as well, and issues such as medical problems or maternal surgeries will affect pregnancy outcomes. Pregnancy-related diabetes mellitus can be commonly cited in this period [4]. Pregnancy is a common and prevalent medical condition in the field of carbohydrate intolerance which affects the phenomenon of pregnancy and can lead to undesirable outcomes and high-risk childbirth and affect the mother and the fetus [5]. The adverse effects of motherhood include increased prevalence of hypertension and preeclampsia, increased cesarean section rate, Cardiovascular diseases and complications associated with dyslipidemia, abdominal obesity, hydramnios, pyelonephritis and long-term hospitalization [6]. Possible fetal complications, also, include increased risk of fetal macrosomia, fetal growth restriction, unjustified death of the fetus, neonatal hypoglycemia, hyperbilirubinemia, cardiac hypertrophy, hypocalcemia, polycythemia, and obesity. Progressive prevalence of diabetes and its subsequent as a serious medical problem have been quite tangible in recent decades [7-8]. The most important concerns are overgrowth of the fetus, maternal damage following fetal macrosomia, as well as other fetal and maternal complications, especially preeclampsia. The apparent outbreak of type 2 diabetes in the future is seen in women with diabetes mellitus and their offspring; half of these women will have diabetes over the next 20 years. Another important observed fact was the strong association between gestational obesity and childbirth obesity [9]. On one hand, London et al study showed that although the treatment of A1 gestational diabetes in which, merely, GTT is affected and the rate of fasting blood glucose is normal, decreases the risk of preeclampsia and macrosomia, it is not that much different in other neonatal complications, such as hyperbilirubinemia and Intrauterine.

METHODOLOGY:

In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the studies investigating Control and treatment of pregnancy diabetes. In this review, the papers published until

early January 2017 that were conducted to study the Control and treatment of pregnancy diabetes in women were selected. In searching for the articles, those English papers were selected that had investigated Control and treatment of pregnancy diabetes.

FINDINGS:

Due to the lack of the same standard for defining glucose intolerance during pregnancy, there is still controversy regarding a comprehensive definition of gestational diabetes. For this reason, individual studies have resulted in different results and lead to confusion about the efficacy and safety of diabetes treatment [10]. According to studies conducted in this area, nutritional interventions along with close monitoring of blood glucose levels are considered as a primary treatment option, and drug therapy will start in the event of a failure of dietary changes in controlling blood sugar levels [11]. It is estimated that 70 to 85% of cases could be controlled by implementing minor lifestyle changes. Blood glucose levels should be measured four times daily, after waking up [FBS] and one or two hours after having main meals. According to recent medical recommendations regarding blood glucose, maintaining a balance of fasting blood glucose less than 46 mg/dl and sugar level below 140 one hour and 120 two hours after the main is of paramount importance [12]. Insulin is the standard medicine for patients with gestational diabetes requiring drug therapy. However, since Langer et al comparison of insulin and glibenclamide in these patients, the use of oral medications, as sub-treatment options, has become increasingly common.

Discussion and conclusion

Along with global prevalence of obesity, lifestyle has led to an increase in the weight of pregnant mothers. Obese and overweight pregnant women are at higher risk for pregnancy complications, such as gestational diabetes [13]. Treatment for patients with gestational diabetes provides an ideal context for implementing primary interventions to prevent type 2 diabetes. Nutritional treatment, and intervention, is the primary treatment of gestational diabetes. Obesity is a major challenge on the way of providing counsel and intervention during pregnancy [14]. In fact, mother's nutrition plays significant role on the metabolism and body structure of the child, and possible inflammation of the immune system that manifests itself in later life, with whom she is pregnant [15]. Therefore, the nutritional environment provides an opportunity to reverse the growing trend of the disease associated with lifestyle in this period of time; consequently, scientists have been paying more and more attention to the issue of dietary intake [16]. Descriptive materials and numerous clinical trials have examined the use of oral medications,

primarily glibenclamide and metformin. Oral glucose lowering drugs have been considered for ease of use and low cost, and this fact causes the use of hypoglycemic drugs, especially metformin and glyburide [17]. Based on the findings of Rown et al study, who compared the use of insulin and metformin in women with gestational diabetes, metformin is a safe option for the treatment of gestational diabetes and has a higher acceptance in patients.

REFERENCES:

- 1.Salarzaei M, Saravani S, Heydari M, Aali H, Malekzadegan A, Soofi D, et al. Prevalence Of Urinary Tract Infection In Children With Nephrotic Syndrome. *International Journal of Pharmaceutical Sciences and Research*. 2017;8[7]:1346-50.
- 2.Mahmoodi Z, Behzadmehr M, Salarzaei M, Havasian MR. Examining High-Risk Behaviors and Behavioral Disorders in Adolescents with Addicted and Non-Addicted Fathers in Public School of Zabol in the Academic Year 2016–2017. *Indian Journal of Forensic Medicine & Toxicology*. 20.251-6:[2]11;17
- 3.Abadi AJ, Saravani S, Aali H, Movaghar E, Far RE, Salarzaei M, et al. Investigating the Epidemiology of Patients with Intracranial Hemorrhage Caused by Head Trauma at the Khatamolanbia Hospital in Zahedan. *International Journal Of Advanced Biotechnology And Research*. 2016;7[4]:1803-11.
- 4.Poureisa M, Behzadmehr R, Daghighi MH, Akhoondzadeh L, Fouladi DF. Orientation of the facet joints in degenerative rotatory lumbar scoliosis: an MR study on 52 patients. *Acta neurochirurgica*. 2016;158[.473-9]:[3
- 5.Nemati M, Hajalioghli P, Jahed S, Behzadmehr R, Rafeey M, Fouladi DF. Normal Values of Spleen Length and Volume: An Ultrasonographic Study in Children. *Ultrasound in medicine & biology*. 2016;42[8]:1771-8.
- 6..Association AD. Gestational diabetes mellitus. *Diabetes care*. 2004;27[suppl 1]:s88-s90.
- 7.Bellamy L, Casas J-P, Hingorani AD, Williams D. Type 2 diabetes mellitus after gestational diabetes: a systematic review and meta-analysis. *The Lancet*. 2009;373[9677]:1773-9.
- 8.Buchanan TA, Xiang AH. Gestational diabetes mellitus. *Journal of Clinical Investigation*. 2005;115[3]:485.
- 9.Chu SY, Callaghan WM, Kim SY, Schmid CH, Lau J, England LJ, et al. Maternal obesity and risk of gestational diabetes mellitus. *Diabetes care*. 2007;30[8]:2070-6.
- 10.Ferrara A. Increasing prevalence of gestational diabetes mellitus. *Diabetes care*. 2007;30[Supplement 2]:S141-S6.
- 11.Kahkhaie KR, Keikhaie KR, Vahed AS, Shirazi M, Amjadi N. Randomized comparison of nylon versus absorbing polyglactin 910 for fascial closure in caesarean section. *Iranian Red Crescent Medical Journal*. 2014;16[4].
- 12.Keikhaie KR, Kahkhaie KR, Mohammadi N, Amjadi N, Forg AA, Ramazani AA. Relationship between Ultrasonic Marker of Fetal Lung Maturity and Lamellar Body Count. *Journal of the National Medical Association*. 2017.
- 13.Rosenberg TJ, Garbers S, Lipkind H, Chiasson MA. Maternal obesity and diabetes as risk factors for adverse pregnancy outcomes: differences among 4 racial/ethnic groups. *American journal of public health*. 2005;95[9]:1545.51-
- 14.Cunningham F, Leveno K, Bloom S, Hauth J, Rouse D, Spong C. Preterm birth. *Williams obstetrics*. 2001;1:689-727.
- 15.Brydon P, Smith T, Proffitt M, Gee H, Holder R, Dunne F. Pregnancy outcome in women with type 2 diabetes mellitus needs to be addressed. *International journal of clinical practice*. 2000;54[7]:418-9.
- 16.Mahmoodi Z, Behzadmehr M, Salarzaei M, Havasian MR. Examining High-Risk Behaviors and Behavioral Disorders in Adolescents with Addicted and Non-Addicted Fathers in Public School of Zabol in the Academic Year 2016–2017. *Indian Journal of Forensic Medicine & Toxicology*. 2017;11[2]:251-6.
- 17.Salarzaei M, Malekzadegan A, Havasian MR, Zaare MA, Behnampoor M, Mahmoodi Z. Assessing The Prevalence Of Disability And Its Relationship With Demographic Characteristics Of The Elderly In Zahedan City In Iran.