

**An Ayurvedic Approach In The Management of GDM W.S.R To Garbhini Prameha**

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**Abstract**

Glucose intolerance developing during pregnancy is termed as Gestational diabetes mellitus. Though the clinical presentation of GDM is well characterized, the mechanism behind the disease is unknown till date. But the interference of placental hormones in the regulation of homeostasis may lead to high blood glucose level in gestational period. Gestational Diabetes mellitus affects ~6.5%(3-10%) of pregnancies. Improper antenatal check up in case of Gestational diabetes mellitus or untreated GDM results in maternal and fetal morbidity and mortality. Educating the patient and proper antenatal supervision may help in decreasing the incidence of the disease. Kataka khadiradi kashaya with Kataka as a main ingredient helps in alleviation of Bahudrava shleshma and Abaddha meda, in samprapti of Garbhini prameha.

**Keywords:** GDM, Glucose intolerance, Kataka khadiradi Kashaya, Bahudrava shleshma, Abaddha meda, Garbhini prameha

**Introduction**

Gestational Diabetes Mellitus (GDM) is defined as carbohydrate intolerance of variable degree with onset or first recognition in present pregnancy.<sup>1</sup> Most of the women revert to normal glucose tolerance post-partum, but have substantial risk (35-60%) developing diabetes mellitus in next 10-20 years. Sedentary life style, obesity, diet, elderly primi, poor obstetric history are some relevant factors

which can cause GDM. Glucose tolerance test, fasting blood sugar, post-prandial blood sugar are the common tests conducted to diagnose GDM.

Conversely Our Acharyas were not stated any specific reference about Garbhini Prameha.

Acharya Sushruta in the context of garbhavyapat quoted jataaraabivruddi and sweda (Macrosomia) as complications of Prameha in the concept of garbha vridhi<sup>2</sup>. Acharya Charaka quoted that Nithya madhurahara sevana may cause prameha in garbini while mentioning garbhopagatakara bhava. “Madura nithya pramehinam

**Aims and Objectives**

1. To study the efficacy of ayurvedic intervention in managing GDM
2. To establish evidence based Ayurveda treatment protocol in controlling hyperglycaemia and related risks in pregnant women

**Nidana**

Here only Apathya Nimittaja Prameha is considered in reference to Garbhini Prameha.

**Aharaja Nidana**

- Adhyasana, Guru, Sheeta, Madhura Ahara Atisevana : Pregnant women taking large amount of food at one time instead of small meals at regular interval, high caloric and rich carbohydrate di
- Amla Rasa Ahara Atisevana, Lavana Guna Ahara Atisevana: Consumption of excessive sour and salty diet.

Navannapana, Ikshu Vikara, Guda Vikara, Ksheera, Dadhi Atisevan increases kapha dosha. Anooa, Udaka & Gramya Mamsa Atisevana.

### Viharaja Nidana

➤ Garbhini Prameha (related to lifestyle) :

Divaswapna (excessive sleeping more than 2 hours in daytime and 8 hours in night).

➤ Ashya Atisuka, Alashya, Achinta (avoiding her usual activities and mild exercise).

Main causative factor of Prameha Bahu Drava Sleshma converts the Badha Meda To Abadha Meda (free fatty acids), and vitiated Mamsa Dhatu (amino acids). It also vitiates Sharira Kleda and increase its quantity, which finally leading to formation of excessive urination.

### Risk Factors For GDM<sup>7</sup>

#### A. Low risk

- a No H/O diabetes in first degree relatives.
- b Age <25 years.
- c Normal body weight before pregnancy(BMI<23).
- d No history of abnormal glucose metabolism.
- No history of poor obstetric outcome.

#### High risk

- a) Severe obesity BMI>30,
- b) Age>35 yrs
- c) H/O TYPE II Diabetes
- d) Previous h/o GDM, impaired glucose metabolism.
- e) Ethnic predisposition(Indians belong to high risk group)

**Average risk:** women of African, Native American, south or East Asian regions.

### Screening Protocol<sup>8</sup>

Gestational weeks at which screening is recommended: By following the usual recommendation for screening between 24 -28 weeks of gestation, the chance of detecting unrecognized Diabetes before pregnancy(pre-GDM) is likely to be missed. So the

recent concept is to screen for glucose in the first trimester itself as the fetal beta cells respond to maternal glycemic level as early as 16 weeks of gestation. So screening is done at 16 weeks, if negative repeated at 24-28 wks/ any time when symptoms and signs of hyperglycemia develop and at 32-34 wks. The usual approach to diagnosing Gestational diabetes is Oral Glucose Challenge Test (OGCT)

### Management Of GDM Through Ayurveda

Generally beneficial, congenial, purifying and suppressive dietetics and mode of life, notcausing loss of doshas and dhatus but capable of decreasing the aggravated dosha-dhatu should be used in Garbha vriddhi.<sup>9</sup>

### Probable Mode Of Action Of Kataka Khadiradi Kashyaya

Jataragni mandya is present in Prameha and Katu, Tikta rasa present in this kashaya may helps to improve agni. Kashaya rasa is present up to 83.33%, which may produce Mutrasangrahaniya prabhava. Tikta, Kashaya rasa present in this formulation produces Shoshana effect. Hence the Prabhoota mutrata in Prameha tend to regress. When predominant Guna is present in research drug are assessed it becomes evident that most of the drugs possess Laghu, Ruksha Guna (i.e. 100% and75%). Ruksha guna helps in alleviation of Bahudrava shleshma and Abaddha meda.

Obstruction of Vata by Kapha and medas are here aarambhaka doshas and Vata is prerakadosha. Now it can be suspected that kashaya rasa, Laghu, Ruksha guna like properties can further aggravate vitiated Vata dosha in Prameha. In this context it is proposed that here it is obstructed Vata (primarily by Kapha & Medas) which is causing trouble, Vata here may not be increased quantity wise in body , only obstruction is there in its natural passages which can be alleviated by Kaphahara, medohara drugs.

The drugs in compound formulation also possess vayasthapana, chakshushya, rasayana, vrishya, grahi,

lekhana, deepana and pachana properties.

### Discussion

Diagnosis of gestational diabetes is as much important as its treatment. If it is not detected and controlled on time it can lead to high rates of mortality. Modern science reveals about insulin resistance in gestational diabetes resulting from the actions of various hormones such as human placental lactogen, oestrogen, etc on carbohydrate metabolism.

Our Acharyas also quoted about this insulin resistance resulting in the form of Amautpatti, Jataragni Vridhi, Dhatuagni Dourbalya, Medovridhi and blockage of channels of Vayu .

It has been clear from above account that Katak Khadiradi Kashyaya can well disintegrated Samprapti of Prameha by acting at various levels that is alleviating dhatvagnimandya owing to presence of certain deepana pachana drugs in it and also rukshata and laghuta present in drug will combat increased Kapha and meda which similitude in their properties. Aamalaki and Haritaki are two drugs, which are known to exert rasayana prabhava too thereby causing oja vardhana.

### Conclusion

Garbhini receiving Kaphavaradhaka Ahaara-vihaara for her health maintainance and fetal growth are more prone to Prameha. Thus she needs more consideration and attention to protect her from Prameha and its serious consequences as early as possible .The science of Ayurveda have various effective tools, which if applied can play an important and helpful role in early detection of gestational diabetes. Women can be prevented by screening them for their Prakriti, Dosha and Dushya predominance and can be managed by Samshamana Chikitsa mentioned for Prameha in ayurvedic classics.

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