



Gestational Diabetes Mellitus, no more nightmares, it can be controlled by little alteration in diet and lifestyle of the mother

(Research Article)

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ABSTRACT

Introduction-*Gestational diabetes mellitus (GDM) is defined as impaired glucose tolerance with onset or first recognition during pregnancy¹. Proper dietary management and little changes in patient's lifestyle are very effective for reducing her plasma glucose level.*

Aims and objectives-*Proper counselling of the patients and flexibility in lifestyle and diet is beneficial to decrease plasma glucose level in GDM patients.*

Materials and Methods-*Total 54 GDM patients of age >18 years were taken. We had four counselling sessions with them at different intervals and discussed about their lifestyle and diet pattern. The patients were explained how we can effectively control their plasma glucose level with the little modification in their diet and routine activities.*

Results and conclusion-*Results were very rewarding as patients could acquire lifestyle of their choice. All the 54 patients were normoglycemic in remaining antenatal period, 38 patients were delivered normally and 16 patients underwent caesarean section due to various reasons. Regular counselling of the patients regarding their disease and little alterations in diet and lifestyle, controlled the plasma glucose level much effectively.*

Key words- *Gestational diabetes mellitus, pregnancy, dietary management*

INTRODUCTION

Gestational diabetes mellitus (GDM) is defined as impaired glucose tolerance with onset or first recognition during pregnancy¹. These patients are more prone to develop overt diabetes mellitus in future. Uncontrolled plasma glucose level is also associated with various complications, which

affect both maternal and fetal health. So, the tight control of plasma glucose of mother is prime necessity for better outcome of pregnancy in GDM patients. It is universally known that the initial treatment of GDM is a good dietary management.

METHODS

This is a qualitative study. Total 54 GDM patients of age >18 years were selected as a sample. Diagnosis of GDM has been established by criteria recommended by the International Association of Diabetes and Pregnancy Study Group(IADPSG),2010² that is any of plasma glucose values Fasting ≥ 92 mg/dL,1 hour ≥ 180 mg/dL,2 hour ≥ 153 mg/dL with 75 gram Oral glucose tolerance test (OGTT).We had four counselling sessions with the patients, at the time of diagnosis, after one week, two weeks and four weeks interval. We discussed with the patients about acceptance of their disease, their routine daily activities, diet and their stress level. The patients were explained how we can effectively control their plasma glucose level with little modification in their diet and routine activities

(like, doing yoga). The total daily calorie requirement of the patients was calculated and they were asked to prepare their own diet chart according to the recourses available at their homes.

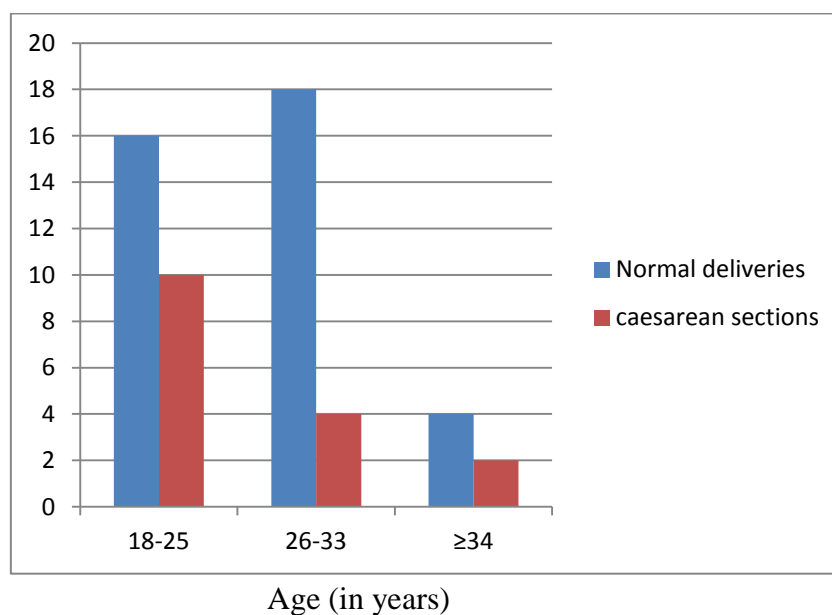
RESULTS

In this study we got very rewarding results as the patients could acquire lifestyle of their choice. All the 54 patients spent rest of their antenatal periods with plasma glucose concentration within normal limits,38 patients were delivered normally and 16 patients underwent caesarean section(table 1, figure 1) due to various reasons without any diabetes related complications to the mother and infant. The mean birth weight of newborns was 2.9kg.

Table 1(original)

Age of the patients (in years)	Number of the patients	Normal delivery	Caesarean section
18 - 25	28	16	10
26 -33	22	18	04
≥ 34	04	04	02
Total	54	38	16

Figure 1 (original)



DISCUSSION

The burden of diabetes is increasing globally particularly in low and middle socio-economics status countries³. Some factors which play significant role are stress, obesity and lack of exercise⁴. GDM is one of the very important entities and should be timely taken care of as its complications affect both maternal and infant's health⁵. Sometimes these complications are so grave that maternal or fetal mortality may occur, which directly reflects health care facilities of a country.

Primary management of GDM is through diet control⁶. As, the calorie requirement in pregnancy increases, dietary management in GDM patients to keep plasma glucose values under control becomes very challenging. We allow euglycemic pregnant women to have healthy meals of their choice at convenient time, but as soon as she turns out to be GDM we become rigid about their diet and impose them to follow diet chart of three major and three minor meals according to guidelines. It is difficult to be strict on diet chart and it may take few weeks to months to take it into routine even in non pregnant diabetic patients. Remaining strict on diet for the rest of their antenatal periods of three to four months may be painful for them and it can further increase the stress of patients which is detrimental to their glucose levels. This study and few other studies show that, flexibility on diet and lifestyle is also important to control plasma glucose along with medical treatment in GDM patients.

CONCLUSION

The study concluded that the first reaction of the patients was denial and after acceptance stress level increased which further deteriorated the condition. So as a treating doctor, along with medical prescription counselling of the patients plays an important role than remaining rigid on conventional diet chart and lifestyle in GDM. Although more Randomized Controlled Trials

with large sample size are needed to establish the facts.

DECLARATIONS

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REFERENCES

1. American Diabetes Association. Diagnosis and Classification of diabetes mellitus. *Diabetes Care* 2013;36:suppl (1)s67-74.
2. International association of Diabetes and Pregnancy Study Groups Consensus Panelled et al. International association of diabetes and pregnancy study groups recommendations on the diagnosis and classification of hyperglycemia in pregnancy. *Diabetes Care*.2010;33:676-682.
3. Hirst JE¹, Tran TS, Do MA, Rowena F, Morris JM, Jeffery HE. Women with gestational diabetes in Vietnam: a qualitative study to determine attitudes and health behaviours. *BMC pregnancy and childbirth* 2012;Vol 1: Number 1: Page 1.
4. Takashi Sugiyama, Management of Gestational Diabetes Mellitus. *JMAJ* 54(5), 293-300, 2011.
5. Luciana Vercoza Viana, Jorge Luiz Gross and Mirela Jobim Azevedo. Dietary Intervention in Patients with Gestational Diabetes Mellitus: A Systemic Review and Meta-analysis of Randomized Clinical Trials on Maternal and Newborn Outcomes. *Diabetes Care*.2014 Dec;37(12):3345-3355.
6. V. Lakshmi Prasanna, Dr A. Jyothi. Gestational Diabetes and Dietary Management Paripex-Indian Journal Of Research, Vol: 5, Issue: 2 February 2016.