ORCHID ID : 0000-0001-8571-9564

Timing of induction of labor in pregnant women with GDM on diet control-An audit in Tawam hospital

Dr S. Solaiman, Dr O. Baghdadi, Dr S. Qayoom, Dr A. Aravindan, Dr H, Khayoun, Dr U. Aziz
Department of Obstetrics & Gynecology Tawam Hospital, Al Ain, United Arab Emirates

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Introduction:

Gestational diabetes mellitus is one of the most common obstetrical complications of pregnancy; with its prevalence varying substantially worldwide from 1.8% to more than 31.0%, which continues to increase

Glycaemic management is the main measure to reduce the occurrence of GDM complications in pregnant women. The optimal time and mode of delivery for patients with GDM is primarily based on glycaemic control. Recommendations for women with medication treated GDM are consistent across multiple clinical. However, various guidelines for diet controlled GDM do not provide clear recommendations for optimal delivery time.

Objectives:

To identify the proportion of women undergoing untimely induction of labor for gestational diabetes mellitus on diet with good glycemic control and to identify common contributors in decision involving early or late inductions. The standard we have measured against is the NICE guideline for Diabetes in pregnancy .As per the recommendations women with gestational diabetes should be advised to give birth 40 weeks plus 6 days.

Methods:

Retrospective analysis of Data collected from electronic medical record using Cerner from 1st August 2021 to 31st January 2022 in Tawam hospital. Included 387 pregnant women who were inpatient with the diagnosis of GDM on diet control. Exclusion: All women with type 1 and type 2 diabetes mellitus and women with gestational diabetes treated with metformin and insulin, women with previous 2 or more cesarean for elective cesarean, women coming in labor or with Spontaneous rupture of membrane.

Results:

Our data reported a 46 out of 360 patients were solely GDM on diet control who underwent induction of labour. All of the GDM on diet patients were brought for induction of labor before 40 +6 weeks. Data analysis reveled that 20(43%) of them were GDM on diet with maternal comorbidities and 26(56%) were GDM on diet with no maternal comorbidities. Among the 26 patients , 17(65%) patients have good glycemic control, and the remaining 9(34%) were noncompliant and uncontrolled glycemic control .

A 23.5% GDM on diet patients were induced before 40+6 with no maternal comorbidities who had a good glycemic control ended in cesarean section. Only 3.8% which is one patient had postpartum hemorrhage and 3(17.6 %) of the neonates required NICU admission.

On the other hand, the group of GDM on diet with maternal co-morbidities, patients were brought for an earlier induction of labor were mainly for; Small for gestational age baby 14(70%) , (20%)Macrosomia, (5%) pregnancy induced hypertension ,(5%) history of IUFD.Other less common causes included Hypothyroidism ,Gestational thrombocytopenia, single umblical artery.

The gestational age at which women with gestational diabetes mellitus (GDM) on a diet were brought for labor induction at 38, 39, and 40 weeks was 23.5%, 35.3%, and 40%, respectively.

Conclusion:

All GDM on diet patients were brought in before the recommended time for induction of labor with 23 % of them ending up in emergency cesarean section. Being compliant and allowing more time for women to progress into spontaneous labor could reduce the probability of failed inductions and subsequent cesarean sections associated with early inductions and reduce the neonatal risks associated with early term births.