**Obstetric ultrasonography as a screening tool for the diagnosis of GDM:**

**Detection of raised AFI and large for gestational age fetus.**

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**ABSTRACT**

**Objective:** To establish the role of determining increased amniotic fluid index (AFI) and large for gestational age (LGA) fetus on ultrasound for the screening of gestational diabetes mellitus (GDM).

**Study Design:** Descriptive Observational study.

**Place and Duration:** Department of Gynaecology and Obstetrics, Pakistan Railway Hospital, Rawalpindi from 1st September 2021 till 28th February 2022.

**Methodology:** The pregnant women, between 20-30 weeks of gestation, suspected of having excessive AFI or LGA fetuses on routine clinical examination, were advised to have an obstetric ultrasound scan. AFI > 20 cm or LGA on ultrasound (>90th percentile for that gestation) were considered abnormal. These participants were then subjected to 75-gram Oral Glucose Tolerance test (OGTT). Based on OGTT, the sample population was divided into two groups at the post-stratification stage: with and without Gestational Diabetes Mellitus (GDM). Chi-square test was applied to compare the frequency of increased AFI and LGA between patients having GDM or not having GDM.

**Results:** The study population (n=75) showed the frequency of LGA as 37.3 % and increased AFI as 65.3%. Women with increased AFI were at a significantly greater risk of GDM (65%), as compared to those with normal AFI (27%) with p-value of 0.002. Also, patients having LGA fetuses (60.7%) were at a greater risk of having GDM, as compared to those with normal weight fetuses (34%) with p-value of 0.024.

**Conclusion:** Women withIncreased AFI and LGA fetuses between 20-30 weeks of gestation are at a greater risk to develop GDM. Hence these ultrasound parameters can be used as reliable screening tools for the detection of GDM.

**Keywords:** Adverse pregnancy outcome, Fetal macrosomia, Gestational diabetes mellitus, Increased Fetal weight, Polyhydramnios

**How to Cite This:**

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