STUDY DESIGN & METHODS

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(A) This study was conducted over a period of one year at the department of obstetrics and Gynaecology, Medical College Baroda and Hospital as a prospective cohort study. Pregnant women attending the antenatal clinics in the gestational age of 24 to 28 weeks were recruited. After a detailed personal, obstetric and family history was taken, the women were administered 50 g glucose orally, regardless of time of previous meal, and followed one hour later with collection of blood for random glucose estimation. Three ml venous blood was collected with complete with aseptic precautions in a sterile fluoride vacutainer and the samples were transported within 6 hours to the laboratory. Venous plasma glucose estimation was performed by Glucose Oxidase Peroxidase enzyme by end point biochemistry technique. All samples were tested at the same laboratory to avoid subjective error. Women with a plasma glucose level $\geq$ 140 mg% were subjected to a 75 g 2- hour oral GTT.

The OGTT was performed in the morning after an overnight fast following a three-day preparatory diet of at least 250 g carbohydrate per day. A positive 2-hour OGTT with 75 g glucose load was defined using the National Diabetes Data Group (NDDG) criteria- two or more venous plasma glucose values meeting or exceeding as follows:

Fasting value	**105 mg/dl**
1-hour value	**190 mg/dl**
2-hour value	**165 mg/dl**

Although most tolerance tests in common use are based on the 100 g 3 hours GTT, our preference for using the 75 g 2-hour GTT is as follows:

- When a GTT is performed in nonpregnant individuals, it is standard to use the 75 g 2-hourly OGTT; using a different glucose challenges in pregnant versus nonpregnant patients leads to confusion in the laboratory and may result in errors in applying the proper diagnostic criteria.

- The 75 g 2-hour OGTT is in use during pregnancy in many countries around the world, typically using the same threshold as in nonpregnant individuals. The development and validation of pregnancy based criteria using the 75 g 2-hourly OGTT would simplify worldwide comparison of data.

- It is likely to be more cost effective as two instead of three values are required. Also patient-waiting time would be reduced.

Although the American Diabetes Association (ADA) still recommends a 3- hour 100 g OGTT for the diagnosis of GDM, it has recently included in its recommendations the use of a 2-h 75 g OGTT. The same fasting 1-h and 2-h diagnostic cut point are used in both tests.

Soonthornpun S et al, in a comparison between 75 g and 100 g OGTT in pregnant women found that plasma glucose responses during the 75 g OGTT were lower than those during the 100 g OGTT. When using the same diagnostic criteria, the prevalence of GDM with the 75g OGTT was also lower.

(B) A clinical assessment was performed at the same visit and the women were categorized into 3 risk categories as recommended by Metzger et al. However all women underwent screening regardless of risk category.

Statistical analysis was performed using an EPI info 6 and Microsoft Excel Software. A p value of less than 0.05 was considered to be statistically significant.

CLINICAL SCREENING FOR GESTATIONAL DIABETES MELITUS

RISK CATEGORY & CLINICAL CHARACTERISTICS	RECOMMENDATION FOR SERUM OR PLASMA GLUCOSE SCREENING
High risk (one or more of following) - Marked obesity - Diabetes in first degree relatives - History of glucose intolerance - Previous infant with macrosomia - Current glycosemia	At initial visit and thereafter repeat at 24-28 Weeks.
Average risk The patient fits neither the low or high risk profiles	Between 24-28 weels.
Low risk - Age <25 years - Belongs to low risk race or ethnic group - No diabetes in first degree relative - Normal pregnancy weight and weight gain - No history of abnormal blood glucose level - No prior obstetric outcome	Not required.