

**Glucose challenge test as a screening for gestational diabetes mellitus and the influence of some of the associated risk factors.**

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517 pregnant women attended to antenatal clinic who underwent the screening with glucose challenge test was studied. Women who exceeded the threshold for gestational diabetes were subjected to oral glucose tolerance test. Oral glucose tolerance test was also done in patients whose glucose challenge test was normal but later showed clinical features of gestational diabetes or had known risk factors of gestational diabetes mellitus. The sensitivity and positive predictive values in the index population were 75 percent and 25 percent respectively. In the group having a family history of diabetes the figures were 81 percent and 33 percent respectively. Among the women older than 30 years the figures were 82 percent and 30 percent. In the group having both risk factors the sensitivity and positive predictive values were 92 percent and 42 percent respectively. Thus the sensitivity and positive predictive values of the glucose challenge test are significantly increased in the presence of known risk factors of gestational diabetes mellitus. As the sensitivity and positive predictive values were low use of glucose challenge test for universal screening is not cost effective. Significant increase in both of above figures in the presence of risk factors favours selective screening of pregnant women for gestational diabetes mellitus.