Preface
The pregnant woman, who must make many metabolic adjustments, provides an intriguing and useful subject for study, both as a source of fundamental knowledge and also as a means of gaining insight into the management of metabolic disease considering the effect of pregnancy on carbohydrate metabolism helps us to not only uncover hidden aberrations in normal patients but also facilitates the control of diabetic individual during her pregnancy. Pregnancy induces major physiological adaptations in the mother which are less obvious but may in some instances, be so marked as to mimic disease. The changes occurring in carbohydrate metabolism is a good example where “diabetes” is suspected.

The normal pregnancy has been characterized as a “diabetogenic state” due to change in the pattern of insulin secretion and sensitivity resulting in increased post prandial glucose and insulin response in late pregnancy. In third trimester there is reduced sensitivity to insulin action due to hormones like human placental lactogen, leptin, prolactin and cortisol which are involved in these changes. During normal pregnancy there is marked reduction of insulin sensitivity which is compensated by an increase in β cell secretion when this need is not met, abnormal glucose tolerance will develop resulting in GDM.
The pregnancy is a state of insulin resistance. Most pregnant women are able to counteract the insulin resistance in pregnancy by increasing their secretion. But, when the capacity of insulin secretion is not sufficiently large to meet the resistance, then glucose intolerance develops and the woman develops gestational diabetes.

In pregnancy, several physiological changes take place, the sum of which tends to reset the glucose homeostasis in the direction of diabetes. About 1-2% of pregnant women develop an abnormal glucose tolerance in pregnancy, but most often glucose tolerance returns to normal postpartum. This condition is called Gestational diabetes mellitus (GDM). The cause of GDM could be decreased insulin receptor binding to target cells combined with a relative lack of circulating insulin.

GDM represents a continuing challenge for both clinicians and investigators even after 40 yrs since the concept of GDM was introduced, the clinical significance of this disorder, sparks great debate. Controversy also remains concerning screening techniques, diagnostic criteria, thresholds for insulin initiation and whether oral hypoglycemic agents are suitable treatments.

The mother becomes almost a new person physiologically during the nine months of pregnancy. Virtually every system undergoes some
change. In this respect, the pregnant woman is a natural laboratory in which to observe the effects of pregnancy hormones and nutritional demands of the foetus. The metabolic changes taking place in normal pregnancy will provide milestones for what to expect and when, in the management of diabetes in pregnancy.

The author will be highly satisfied if this small piece of work could help in understanding about gestational diabetes a little better.