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**Original article:**

**Evaluation of liver function tests in different trimesters of normal pregnancy**

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**Abstract:**

I**ntroduction:** Pregnancy is a physiological condition which brings about changes in different systems of the body to support the growing fetus in the uterus. The increase levels of sex hormones estradiol and progesterone during normal pregnancy effect the hepatic metabolism, synthesis and excretory function.

**Aim**: This study was designed to evaluate some of the liver function tests in different trimesters of pregnancy and to study the variations taking place in normal pregnancy.

 **Method and materials**: In this study 180 pregnant women, 60 in each trimester all attending antenatal OPD in Jorhat Medical College, Jorhat are taken. They were compared with 60 non pregnant healthy women without oral contraceptives. The liver function tests comprising of total Protein, Albumin, total bilirubin, Alanine aminotransferase (ALT), Aspartate aminotransferase (AST), Gamma glutamyl transferase (GGT) and ALP (Alkaline phosphatase) were estimated in dry chemistry autoanalyser Johnson & Johnson’s Vitreous 250. The statistical analysis was done by using student ‘t’ test.

**Results**: From the study it was found that the serum albumin values decreased in all the trimesters of pregnancy when compared with non pregnant control group, P < 0.001.Total bilirubin values also show a lower trend when compared with control group,P <0.05. The ALT values decreased in 3rd trimester P < 0.001 when compared with control group.. The ALP values increased significantly in all the trimesters when compared with the non pregnant control group, P < 0.001

**Conclusion**: There is decrease in total protein and albumin and increase in ALP in normal pregnancy which should be correlated clinically before terming them to be pathological.

**Keywords**: Alanine aminotransferase, Aspartate aminotransferase, Alkaline Phosphatase