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### **Serum gamma glutamyl transferase activity among hypertensive patients**

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**Objectives:** Hypertension (HTN), a chronic medical condition of elevated blood pressure in the arteries. It is an emerging problem worldwide and one of the identifiable cause of kidney disease. Serum gamma glutamyl transferase (GGT), an enzyme that transfers gamma glutamyl functional group is a diagnostic marker of liver disease, alcoholism but recently increased serum GGT activities are implicated in increased blood pressure and the progression of hypertension. This study was aimed to determine activity of GGT in hypertensive patients.

**Methods:** Total of 150 participants were recruited from department of medicine, Star Hospital for this hospital based cross-sectional study. Among which 50 were normotensive, 50 were pre-hypertensive and 50 were hypertensive. Blood sample were collected and analyzed in spectrophotometer by kinetic method.

**Results:** Mean serum GGT activity is significantly different among normotensive, prehypertensive and hypertensive groups (i.e. 10.3 IU/L, 26.5IU/L and 37.2 IU/L respectively). Serum GGT activity is significantly higher in prehypertensive patients than normotensive group ( $p=0.001$ ). Similarly GGT activity is significantly increased in hypertensive patients than prehypertensive patients ( $p=0.001$ ).

**Conclusions:** Serum GGT activity is raised in prehypertensive and hypertensive participants as compared to normotensive. Thus Serum GGT level can serve as predictive marker of hypertension which can prevent future kidney disorders.