**0riginal article**

**Study of relation of BMI with cardiovascular autonomic function**

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**Abstract**

**Background**-Chronic imbalance of the autonomic nervous system is a prevalent and potent risk factor for adverse cardiovascular events, including mortality. Although not widely recognized by clinician, this risk factor for adverse cardiovascular events, including mortality. Although not widely recognized by clinicians, this risk factor is easily accessed by measure such as resting and peak exercise rate, heart rate recovery rate variability. The present study was done to establish the relation of BMI on cardiovascular autonomic functions. The present study was carried out among office staff in the age group [38-58] years in Gauhati medical college.

**Materials and method**-While selecting the cases only those cases were taken who were free from systemic disease. They were divided into four groups according to BMI,normal,moderately obese, obese and underweight.Various autonomic tests such as deep breadth and valsalva ratio for parasympathetic function, and hand grip test and orthostatic hypotension test for sympathetic function were performed.

**Result:** It was seen that sympathetic activity increased as BMI increased and parasympathetic activity decreased as there was significant decrease in the valsalva ratio and deep breadth test in moderately obese and obese compared to the normal BMI .On the other hand there was a significant increase in handgrip test and orthosatic hypotension test in obese compared to that of normal BMI.

**Conclusion:** Sympathetic imbalance was seen in moderately obese and obese,parasympathetic activity was significantly decrease**d.**

**Key words** : Obesity , Autonomic functions , Sympathetic , Parasympathetic