

Masked Hypertension and Its Impact on Heart, Kidneys and Peripheral Vascular System

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BACKGROUND:

Worldwide, Cardiovascular diseases (CVD) are the leading cause of death accounting for 30% of all death causes.(1) Hypertension (HTN) is considered as the main risk factor for cardiovascular and renal diseases, thus constituting one of the main determinants of mortality and morbidity worldwide.(2)

OBJECTIVE:

estimate the prevalence of masked hypertension among the Egyptian population and to compare the dipping statuses of masked hypertensives and normotensives. Also, to investigate the relation of masked hypertension to target organ damage in the heart, kidneys and peripheral vascular system as well as different cardiovascular risk factors as smoking, age, sex and dyslipidemia.

PATIENT AND METHODS:

This study included 200 patients, randomly chosen, presented to cardiology clinic for checkup. All patients will be subjected to Full medical and surgical history taking, Clinical examination, office blood pressure measurement after 5 minutes rest 3 times, the first measurement will be cancelled to exclude WCH, the mean of the 2nd and the 3rd value are enrolled. Then ABPM was

done 24 hours basis according to the inclusion and exclusion criteria mentioned. As a next step, patients were classified into 2 groups according to clinical BP and ABPM readings (Normotensive group and MH group).

RESULTS:

31.5% have MH, mean age, weigh and BMI are higher in MH group, Males are more affected than females, MH is more common among smokers, MH group shares a higher mean LVMI and ABI and a lower GFR than NT group.

CONCLUSION:

MH is highly prevalent and it can be diagnosed effectively with ABPM. MH, like true hypertension, is associated with different cardiovascular risk factors as age, sex, smoking, dyslipidemia and obesity (high weight and increased BMI). MH is associated with non-dipping status, which has been associated to cardiovascular morbidity and mortality. Study results provide direct evidence of increased TOD like LVH (by ECG and echo), PVD (by ABI) and Renal failure (eGFR).