**Prevalence of Masked Hypertension in Treated and Untreated Clinically Normotensive Patients**

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**Introduction:**

Masked hypertension (MH) and masked uncontrolled hypertension (MUCH) are both associated with increased cardiovascular disease risk. However, few data is available on the prevalence MH and MUCH in the UK population. Likewise, there is limited data on the characteristics of the MH subtypes of masked daytime hypertension (MDH) and masked nocturnal hypertension (MNH).

**Methods:**

In this retrospective study, we analysed the data of 177 individuals with non-elevated clinic BP (CBP<140/90mmHg) who attended our clinic for 24-hour ambulatory BP monitoring (ABPM). 105 of these individuals were taking antihypertensive medication whilst 72 were not. A Spacelabs 90217 BP Monitor was used to asses ambulatory BP (ABP). Individuals with a non-elevated CBP, non-elevated daytime ABP (BP<135/85) and non-elevated nocturnal BP (BP<120/70) were classified as having sustained normotension (SN), or controlled BP if on antihypertensive medication. Individuals with a non-elevated CBP but with an elevated daytime ABP (SBP≥135 and/or DBP) ≥85) were diagnosed with MDH, or masked uncontrolled daytime hypertension (MUCDH) if taking anti-hypertensive medication. individuals with a non-elevated CBP, a non-elevated daytime ABP, but an elevated nocturnal ABP (SBP ≥120 and/or DBP≥70) were diagnosed as having MNH, or MUCNH if taking antihypertensive medication.

**Results:**

Of those untreated, 40 patients (55.6%) were diagnosed with MH (age 42.3years, 57.5%men). Of those taking medication, 74 patients (70.5%) were diagnosed with MUCH (age 53.4years, 51.4%men). Smoking history was significantly higher in MDH and MNH groups. The proportion of individuals with high-normal CBP (≥130/85 but <140/90) was also significantly higher in MDH (*p* <0.001), MNH (*p* <0.048) and MUCDH groups (*p* <0.001).

**Conclusions:**

The prevalence of MH and MUCH is high in individuals attending a specialist hypertension center. Our findings suggest the need for the acknowledgement of these entities by UK guidelines, and suggest 24h-ABPM (rather than day-time) screening in individuals with high-normal BP and in smokers.