

hypercholesterolemia (19.7% versus 14.1%,  $P=0.05$ ). Obesity was common among women (34.7% vs. 21.2% for men,  $P=0.01$ ). After adjustment, masked hypertension incidence was associated with the male gender (RR = 1.42, 95% CI: 1.13–1.85), age (RR 40–49 = 1.5, 95% CI: 1.1–3.1, RR  $\geq 50$  = 1.32, 95% CI: 1.08–2.1), body mass index (RR  $\geq 27$  = 1.4, CI 95%: 1.12–2.06), smoking status (RR = 1.5, 95% CI: 1.02–2.22).

**Conclusions** Masked hypertension is common especially in patients with age ranging from 30 to 60 years. Our results indicate that socio-demographic risk factors and lifestyle are associated with the incidence of MAH. These factors should be considered in screening efforts of individuals at risk for developing masked hypertension.

**Disclosure of interest** The authors declare that they have no competing interest.

<https://doi.org/10.1016/j.acvdsp.2019.05.074>

## Evaluation of orthostatic hypotension in Type 2 Diabetics



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**Background** Orthostatic hypotension (OH) is a component of the sympathetic system's dysfunction. OH is a factor of morbidity-mortality independent of relevant pathologies, and it increases global and cardiovascular mortality. OH also increases the risk of falling resulting in important social and economic consequences.

**Purpose** The aim of our study was to evaluate the OH frequency in type 2 diabetic patients (T2D).

**Methods** This prospective cross-sectional study was conducted in the explorations unit of the internal medicine department, throughout a period of two years. Patients included were adults with T2D. OH was defined as a decrease in the systolic arterial pressure > 20 mm Hg and/or a decrease in the diastolic arterial pressure > 10 mm Hg, after 3 minutes of standing from a lying position. The arterial pressure was measured with a validated electronic device.

**Results** We included 367 diabetic patients. The evaluation focused on 286 patients among whom 175 are women; the average age was 64 years old. The average duration of diabetes was 9 years, 44% suffered from dyslipidemia and 45% from obesity. High blood pressure was present in 60% among whom 23% of patients were treated with beta blockers, 21% with angiotensin II receptor blockers, 17% with angiotensin converting enzyme inhibitors, 15% with diuretics, and 11% with calcium channel blockers.

Orthostatic hypotension has been identified in 9 patients (3%).

The frequency of complications in group of patients with OH versus (vs) group of patients without OH were respectively for nephropathy: 44% vs. 14% ( $P=0.01$ ) and for peripheral neuropathy: 33% vs. 7% ( $P=0.006$ ). There is no statistically difference between two groups, for retinopathy, myocardial infarction, stroke and peripheral arterial disease.

**Conclusion** Orthostatic Hypotension is relatively rare in our patients with type 2 diabetes and was significantly associated with nephropathy and neuropathy.

**Disclosure of interest** The authors declare that they have no competing interest.

<https://doi.org/10.1016/j.acvdsp.2019.05.075>

## Comparison of the measurement of the blood pressure in consultation versus home



## monitoring for the evaluation of the blood pressure targets in the diabetics of type 2

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**Introduction** High blood pressure (hypertension) is a key parameter of microvascular and macrovascular complications in the diabetic patient. Target organ damage correlates better with home blood pressure (BP) monitoring than with the measuring of BP in consultation.

**Objective** The objective of this study is to compare the measurement of the blood pressure in consultation versus home monitoring, to evaluate the achievement of the BP targets in patients with type 2 diabetes. We also looked for masked hypertension secondarily.

**Materials and methods** Prospective study at in consultation including known adult hypertensive diabetics of type 2 patients. The measurement of the BP in consultation after a rest of at least 5 minutes, by a validated electronic device. Three measurements are made and the average of the last two measurements is calculated. The home BP monitoring was performed over 7 days by a validated electronic device given to the patient who must perform 3 measurements in the morning on an empty stomach and 3 measurements in the evening before bedtime at one minute intervals. A minimum of 18 measurements is required with a minimum of 6 measurements in the morning and 6 in the evening. BP target reached if the BP in consultation is less than 140 mmHg systolic and 90 mmHg diastolic, and if the home BP monitoring is less than 135 mmHg systolic and 85 mmHg diastolic. A masked hypertension is defined by a normal BP in consultation, and a high BP in home monitoring.

**Results** We collected 221 diabetics of type 2 patients, hypertension is known in 115 (52%), including 32 women, mean age 59 years with a mean duration of diabetes of 8 years. Obesity in 37%, dyslipidemia in 51%, coronary artery disease in 10%, stroke in 9%, and peripheral arterial disease in 1%, antihypertensive therapy includes: ARBs  $n=20$ , ACE  $n=18$ , Beta-blockers  $n=26$ , diuretics  $n=17$  and calcium channel blockers  $n=4$ . Thirty-three % of patients are in monotherapy, 27% in dual therapy, and 13% in triple therapy. The average of the systolic BP in consultation is 137 mmHg, and the average of the systolic BP in home monitoring is 125 mmHg, the average difference between them is 12 mmHg, with a statistically significant difference  $P=0.009$  ( $P<0.05$ ) found by comparing the measure of systolic BP in consultation versus home monitoring. The mean of the diastolic BP in consultation is 80 mmHg and the diastolic BP in home monitoring is 76 mmHg, the average difference between both is 4 mmHg, with a statistically significant difference  $P=0.02$  ( $P<0.05$ ) between the measurement of the diastolic BP in consultation versus home monitoring. The systolic BP is controlled in 55% of patients in consultation against 72% in home monitoring with a statistically significant difference  $P=0.01$  ( $P<0.05$ ), and the diastolic BP is controlled in 76% of patients in consultation and in 88% in home monitoring with a statistically significant difference  $P=0.02$  ( $P<0.05$ ). We detected a masked hypertension in 4 patients.

**Conclusion** In our series of diabetics of type 2 patients, the comparison of the measurement of BP in consultation against home monitoring for the assessment of the BP targets, found a better evaluation in the home BP monitoring compared to consultation measurement of BP, with a gain of 17% in systolic BP and 12% in diastolic BP. We detected a masked hypertension in 4% of patients.