

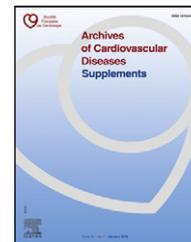


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03 – Epidemiology

Prevalence and control of hypertension in hemodialysis patients using ambulatory blood pressure in the area of Blida (Algeria)



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Purpose We aimed to evaluate the prevalence and control of hypertension using ABPM in a large hemodialysis population according to the latest definitions.

Methods A total of 178 hemodialysis patients underwent 24-hour ABPM during a regular hemodialysis session and pre-hemodialysis interval (PHD). HT was defined as pre-hemodialysis BP \geq 140/90 mmHg or use of antihypertensive (ATH) drugs and ambulatory BP \geq 130/80 mmHg or use of ATH drugs. The control phenotypes of hypertension were defined as follows:

- concordant control (PHD BP $<$ 140/90 mmHg and ABPM $<$ 130/80 mmHg);
- concomitant lack of control (PHD BP \geq 140/90 mmHg and ABPM \geq 130/80 mmHg);
- “white coat” phenomenon (PHD BP \geq 140/90 mmHg and ABPM $<$ 130/80 mmHg);
- masked hypertension (PHD BP $<$ 140/90 mmHg and ABPM \geq 130/80 mmHg).

Results Mean BP values were: 141.7 ± 19 and 79.8 ± 11 mmHg. There was higher prevalence of uncontrolled systolic pressure and diastolic pressure rate in men ($P < 0.001$). In PHD, the prevalence of HT was 93.1%. According to the ABPM and during the haemodialysis period, the prevalence was 84.6%. The proportion of hypertensive patients receiving treatment was 80.4%. With the use of BP in PHD and ABPM, 11.1% of hypertensive patients had concomitant control of BP, 63.2% of patients had no control of BP, 15.5% had a white coat phenomenon and 10.2% had masked HT. In multivariate analysis, only the use of antihypertensive drugs was independently associated with an increased likelihood of no control. A significant relationship between uncontrolled BP and diabetic nephropathy was found ($P = 0.01$). Patients with uncontrolled BP most often used a calcium antagonist alone (87% vs. 48%). There was a significant difference in the presence of diabetes and cardiovascular disease between studied groups ($P < 0.01$).

Conclusions The prevalence of hypertension in hemodialysis patients is extremely high. BP control rates differ between ABPM

and office BP. Poor BP control in men may result from lower compliance. Combined antihypertensive therapy may increase adherence to reduce cardiovascular risk.

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

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High blood pressure in a type 2 diabetic population of the city of Sidi Bel Abbes, Algeria



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Background The association of type 2 diabetes and high blood pressure (HT) results in increased cardiovascular risk and accelerated degenerative complications of diabetes. We aimed to determine the frequency of HT in type 2 diabetic patients and to evaluate the relationship between this association with the micro-angiopathy complications.

Methods A cross sectional study was conducted in 279 type 2 diabetic patients (67.7% women, 32.3% men), mean age: 60.16 ± 0.60 years old, diabetes duration: 11 ± 0.47 years, body mass index: 28.70 kg/m^2 ; 47.9% of patients were overweight and 32.3% were obese.

Results HT was found in 58.9% of patients (62.7% women, 50.6% men). This percentage significantly increased with age ($P < 0.001$): 20% of patients younger than 40 years old, 40% aged 40–50 years, 47% aged 50–60 years and 74% over 60 years old. HT also significantly increased with duration of diabetes ($P = 0.001$): 40% of patients whose duration of diabetes did not exceed 5 years, 55% between 5 and 10 years, 67% between 10 and 20 years, and 74% among those whose duration of diabetes exceeded 20 years. HT occurred in 60% of patients with normal weight, in 55% of overweight patients and in 62% of obese patients without significant difference. HT was found in 59% of patients with normal HDL plasma levels versus 50% of patients with low HDL levels, in 58% with a normal triglyceride vs. 56% in those with high levels of TG. For degenerative complications, retinopathy was found in 34% of patients (36.6% men, 29% women) without significant difference between sexes. Nephropathy was found in 9% of patients, all those were women.