

## Utility of Non-Invasive Ambulatory Blood Pressure Monitoring in a Hypertension Clinic

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Prevalence of the white-coat effect, significance of blood pressure (BP) load and variability of BP have been analyzed in a sample of 181 patients consulting a hypertension clinic and whose BP was recorded during 24 hours with a Spacelabs 90207 monitor. BP was measured every 20 minutes from 7 to 21h and every 30 minutes from 21 to 7h.

Statistical analysis indicates that office BP (OBP) has a good correlation with daytime BP ( $r=0.67$  with SBP;  $r=0.70$  with DBP) and with 24h BP ( $r=0.65$  with SBP;  $r=0.66$  with DBP). Nevertheless, OBP is almost always higher than ambulatory BP (ABP) except for low values. That discordance (mean difference =13 mm Hg) increases when OBP is elevated. This outlines the problem of specific definitions of normal on the basis of ABP measurements. Linear regression between OBP and daytime ABP shows that classical WHO criteria, i.e. 140/90 mm Hg and 160/95 mm Hg, correspond respectively to 135/85 mm Hg and 145/90 mm Hg. OBP could generally overestimate frequency of hypertension; in our sample 50% of those patients who had an OBP between 140 and 159 mm Hg revealed perfectly normal daytime and 24h BP levels.

Efficacy of antihypertensive drugs was also evaluated by ABPM in 104 treated patients. Results demonstrate that only 1/3 of patients have normalized their BP and 2/3 remain with pathological values despite the therapy. Resistance or noncompliance with the treatment can explain these observations. Finally, correlation between OBP, ABP and echocardiographic index confirm that ABP (especially systolic BP and BP load) is a better predictor of left ventricular hypertrophy than OBP.

Ref.: A. Saint-Remy, B. Dubois, J.M. Krzesinski, G. Rorive. Apport de la mesure ambulatoire de la pression artérielle dans une consultation d'hypertension artérielle. *J. Cardiol*, année 5, 1 jan. 1993.