P-83

HAEMORHEOLYIC ALTERATIONS IN WHITE COAT HYPERTENSION

Paula Alcantara, Carlos S Moreira, Carlota Saldanha, Cristina Alcantara, José M Braz-Nogueira, João Martins e Silva. Department of Medicine I, Santa-Maria Hospital, Lisbon, Portugal; Department of Medicine I, Santa-Maria Hospital, Lisbon, Portugal; Quimica Fisiológica Institute, Lisbon Medicine Faculty, Lisbon, Portugal; Department of Medicine I, Santa-Maria Hospital, Lisbon, Portugal; Department of Medicine I, Santa-Maria Hospital, Lisbon, Portugal; Quimica Fisiológica Institute, Lisbon Medicine Faculty, Lisbon, Portugal.

Introduction: The 24 hours monitoring blood pressure has allowed the discrimination between hypertension and white coat hypertension. Several works have shown haemorheolyic alterations in hypertensive patients, which might be related with the increased risk for cardiovascular events. The objective of the present work was to evaluate if any alteration in haemorheologyc parameters was present in the WCH.

Material and Methods: A non-smokers population of 101 individuals, otherwise healthy, except for hypertension, was studied, and divided in normotensives (NT), white coat hypertensives (WCH), and sustained hypertension (HT). All hypertensive patients were under medication. Blood pressure was evaluated using one device Space Lab 90027. WCH defined as office arterial systolic pressure ^{3} 140 mmHg and diastolic pressure ^{3} 90, and ambulatory daytime pressures $<$ 130/80 mmHg. It was determined erythrocyte aggregation, fibrinogen, erythrocyte filtration and plasma viscosity.

It was used the ANOVA statistical model, with the Scheffé's multiple comparison test. It was considered statistically significant values of $p<0,01$ (two-tailed).

Results: There is increasing fibrinogen and plasma viscosity between normotensives and white coat hypertensives, and between those and hypertensives.

Group Characteristics

	N (34)	WCH (32)	HT (35)	P
Age	42.3 ± 12.6	45.3 ± 9.5	44.9 ± 11.1	n.s.
Sex (M/F)	24/10	24/8	27/8	n.s.
BMI	26.2 ± 1.3	27.1 ± 1.9	27.3 ± 1.3	n.s.
SBP casual	124.2 ± 8.3	144.3 ± 9.8	158.4 ± 11.3	<0.01
DBP casual	72.1 ± 6.2	91.3 ± 7.1	93.1 ± 9.3	<0.01
SBP-ABPM	115.3 ± 9.2	129.1 ± 10.3	145.3 ± 14	<0.01
DBP-ABPM	70.1 ± 7.3	78.1 ± 8.1	87.6 ± 9.2	<0.01
Dipper status (%)	100	93,7%	83,3	n.s.
Hemoglobin	14.1 ± 1.7	143 ± 1.9	14.1 ± 2	n.s.
Haematocrit	44.2 ± 2.7	43.1 ± 2.9	43 ± 2.8	n.s.
Fibrinogen	253.8 ± 102.5	304.3 ± 89.3	367.3 ± 101.0	<0.01
Plasma viscosity	1.13 ± 0.08	1.22 ± 0.10	1.32 ± 0.11	<0.01

BMI = body mass index

Conclusions: The increased fibrinogen and plasma viscosity in WCH suggest that this condition might be also looked as a marker for increased cardiovascular risk.

Key Words: White coat hypertension, haemorheology, risk markers

0895-7061/03/$30.00