Gender differences in blood pressure and electrocardiography parameters in response to antihypertensive treatment supplemented with dietary flavonoids

Marina M J Romero-Prado, J Aarón Curiel Beltrán, Maria Viviana Miramontes Espino and Ernesto G Cardona Munoz
University of Guadalajara, Mexico

Introduction: Previously we have shown that dietary flavonoids (DF) administrated to antihypertensive pharmacological therapy (AHT) have additional benefits on blood pressure, lipid profile, inflammation and obesity in hypertensive young people. In the present work, we compared the efficacy of this approach with DF on electrocardiography parameters on both gender patients from 20 to 50 years.

Material & Methods: 37 male and 42 female patients with hypertension grade I (n=27) or II (n=52) received 425.8±13.9 mg gallic acid equivalents (GAE) from dietary flavonoids were added to AHT based on captopril (50 mg/day) or telmisartan (40 mg/day) during 6 months. The standard electrocardiogram (ECG) 12-lead was recorded at 25 mm/s and 1 mV/cm measured at 0, 3 and 6 months of treatment. The ECGs criteria was: The Cornell voltage combination (CV)=(RaVL+SV3); the Cornell product (CP), considered as the product of QRS duration times the CV. The media changes between base line to the end of the study were considered as significant at P<0.05.

Results: By gender, the SBP diminution was significantly lower in women with AHT+DF vs. AHT (−40.5±8.4 vs. −30.65±9.2 mm Hg) (P=0.002). DBP reduction was different in women with ATH (−18.3±8.4 mm Hg) vs. ATH+DF (−20.6±5.1 mm Hg) (P=0.049); while men with AHT showed (−17.9±4.6) vs. ATH+DF (−21±5) (P=0.03).

Conclusion: By gender, male were the most favored than women in the CP diminution, so the response to DF added to AHT in BP and ECG parameters depends on patient's gender.

Biography
Marina M J Romero-Prado has completed her PhD from Autonomous University of Madrid (UAM), Spain. She is a Molecular Biologist, Geneticist and works as a Professor and Director of a research team focused on pharmacogenetics of complex metabolic diseases at the Experimental and Clinical Therapeutics Institute in CUCS, University of Guadalajara. She has published her discoveries in expression regulation of growth hormone gene and molecular and cellular research about biological potential of mesenchymal stem cells. Her incursion as leader in clinical protocols has served to bind the basic and applied research in complementary medicine.

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