P44 Spureous Systolic Hypertension or a Defined Arterial Stiffness Phenotype

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ABSTRACT

Background: High systolic blood pressure in young individuals with normal central pressure has been described as "Spureous Systolic Hypertension" and there is a strong controversy if it is a normal or pathologic condition.

Objective: To compare young adult patients (20–40 y.o.) with isolated systolic hypertension (ISH) with elderly patients (60 to 80 y.o.) with the same condition and analyze the vascular and hemodynamic patterns to find out if the spureous hypertension is truly a hypertensive phenotype and deserves to be treated.

Material and Methods: To analyze the vascular pattern we evaluated the database of NIVE (Phillips IU22® and CAP with Arteriograph®) with 2890 first ever evaluated patients, and analyzed 55 young controls (A), 56 young with ISH (B), 19 elderly controls (C) and 51 elderly with ISH (D). For the Hemodynamic analysis (Impedance Cardiography, Exxer®) the same groups with (A) 115, (B) 59, (C) 50 and (D) 148.

Results: Most of the vascular and hemodynamic findings as expected by age but Group B was similar in terms of the central stiffness (PWV, Ao PP and total Compliance) to the group C meaning EVA. The proportion of p with increased IMT, abnormal PWV and endothelial dysfunction were higher in the B group compared with A and the elderly (Comparison between same age intervals by "t" test and ANOVA for the whole sample. Signification <0.05).

Conclusion: Young hypertensives between 20 and 40 y.o. with ISH seem to be carriers of a defined arterial stiffness hypertensive phenotype rather than an "innocent" spureous phenomena.