P6.18: CARDIOVASCULAR TARGET ORGAN DAMAGE IN PREMENOPAUSAL SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS AND IN CONTROLS; ARE THERE ANY DIFFERENCES?


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Methods: We studied 128 subjects with stage 1-3 arterial hypertension, mean age 51±11 years, 48% males, BP = 141±24/87±13 mmHg, hypertension duration 10.1±8 years. Noninvasive central aortic BP and wave form characteristics (Alx and AIx corrected by heart rate of 75 bpm — Alx75) were synthesized from radial arterial pressure waves (applanation tonometry) by Sphygmocor®. Brachial BP was obtained by an automatic device(Omron®).

Results: Brachial systolic BP was higher (145±26 vs. 136±20 mmHg, p<0.04) and, weight (76.2±14 vs. 86.4±13.2, p<0.01) and height (1.59±0.06 vs. 1.72±0.08, p<0.01) were lower in females than in males. Central systolic BP (137±30 vs 125±23 mmHg, p<0.01), Alx(32.7±9.8 vs 19.5±11.7, p<0.01), Alx75(29.6±6.9 vs 18.0±9.3, p<0.01) were higher in females, even after adjustments for weight, height and systolic BP. Postmenopausal status was present in 70% of females and mean age of menopause beginning was 47.8 years. Women at postmenopausal status older than 48 years showed worse Alx(35.3±9.4) than younger women(26.8±8.9) and also than men(23.2±12.4) at same age(p<0.05).

Conclusions: Hypertensive females have higher brachial and central systolic BP than hypertensive males. Arterial stiffness is higher in hypertensive females than in men, at all ages, and in postmenopausal status is worse than in fertile period.

P6.20
ROLE OF ALTERED VASCULAR REACTIVITY IN THE PATHOPHYSIOLOGY OF ACUTE MOUNTAIN SICKNESS
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Purpose: The aim of this study is to explore the physiological vascular adaptation to exposure to high altitude and to test the hypothesis that its impairment may play a role in the pathophysiology of acute mountain sickness (AMS).

Methods: 34 healthy volunteers (age 38.1±11.3 years, 13 women) were studied at the sea level and after passive ascent to 3842 m (Aiguille du Midi, France). Blood pressure (BP), O2 saturation (SO2), endothelial function (flow-mediated dilatation, FMD), carotid distensibility coefficient (DC), carotid-femoral pulse wave velocity (PWV), peak systolic velocity in the middle cerebral artery (MCA-PSV) were performed at sea level (T0) and after 4-h hypobaric hypoxia (T1). AMS was defined as a Lake-Louise Score>5 after 24-h hypobaric hypoxia (T2).

Results: At T2 12 individuals developed AMS (AMS+). AMS+ had a greater SO2 worsening at T1 as compared to AMS- (AMS+: 97.2±2.5 vs 97.5±3.5, p<0.04). No significant differences were observed for all echocardiographic parameters except LV systolic longitudinal function(Sm), an early index of LV systolic dysfunction(see Table). Carotid IMP and distensibility, as well as PWV and the prevalence of an abnormal aortic stiffness were both similar in the two groups. At the logistic analysis, PWV was independently associated with LV mass in controls and with the steroid weekly dose in SLE patients. Conclusions: In patients with SLE and low activity index of the disease we did not observe significant vascular alterations as compare to controls with similar cardiovascular risk. The early LV systolic impairment observed in this group of patients needs confirmation in larger cohorts.

P6.19
GENDER DIFFERENCES OF ARTERIAL STIFFNESS AND CENTRAL BLOOD PRESSURE IN PATIENTS WITH ARTERIAL HYPERTENSION AND THE INFLUENCE OF MENOPAUSE
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Introduction: In general population women seems to have greater arterial stiffness and central blood pressure at menopause, but in hypertension this condition is poorly studied.

Objectives: To evaluate differences of central BP and arterial stiffness between men and women with arterial hypertension and the influence of post-menopausal status.

Methods: We studied 128 subjects with stage 1-3 arterial hypertension, mean age 51±11 years, 48% males, BP = 141±24/87±13 mmHg, hypertension duration 10.1±8 years. Noninvasive central aortic BP and wave form characteristics (Alx and AIx corrected by heart rate of 75 bpm — Alx75) were synthesized from radial arterial pressure waves (applanation tonometry) by Sphygmocor®. Brachial BP was obtained by an automatic device(Omron®).

Results: Brachial systolic BP was higher (145±26 vs. 136±20 mmHg, p<0.04) and, weight (76.2±14 vs. 86.4±13.2, p<0.01) and height (1.59±0.06 vs. 1.72±0.08, p<0.01) were lower in females than in males. Central systolic BP (137±30 vs 125±23 mmHg, p<0.01), Alx(32.7±9.8 vs 19.5±11.7, p<0.01), Alx75(29.6±6.9 vs 18.0±9.3, p<0.01) were higher in females, even after adjustments for weight, height and systolic BP. Postmenopausal status was present in 70% of females and mean age of menopause beginning was 47.8 years. Women at postmenopausal status older than 48 years showed worse Alx(35.3±9.4) than younger women(26.8±8.9) and also than men(23.2±12.4) at same age(p<0.05).

Conclusions: Hypertensive females have higher brachial and central systolic BP than hypertensive males. Arterial stiffness is higher in hypertensive females than in men, at all ages, and in postmenopausal status is worse than in fertile period.