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MICROALBUMINURIA IS ASSOCIATED TO UNFAVORABLE ALTERATIONS IN ARTERIAL PRESSURE WAVEFORM SHAPE IN UNTREATED ESSENTIAL HYPERTENSIVE SUBJECTS

It is identified that a slight increase in urinary albumin excretion (UAE) and an impaired arterial mechanics are risk factors for future cardiovascular disease in the setting of essential hypertension. In the present study we sought to determine the relationship between microalbuminuria (MA) and arterial pressure waveform in essential hypertensive patients. Microalbuminuria was determined in 3 non-consecutive 24-hour urine samples as UAE of 20-200mg/24h in a group of 130 untreated hypertensive subjects. Arterial pressure waveform was expressed as the augmentation index (Alx) and was recorded by carotid applanation tonometry. The Alx was calculated as the ratio of the augmented pressure (i.e., the difference between the early and late systolic pressure) to pulse pressure. The pooled population was classified, according to the arterial pressure waveform contour, as type A (Alx > 0.12), type B (0 < Alx ≤ 0.12) and type C (Alx ≤ 0). The group of patients with MA (n=48) was matched for demographics with those without MA (n=82). Subjects with MA had significantly increased left ventricular mass index (101 vs 85 g/m², p<0.0001), office blood pressure (164/100 vs 146/94 mmHg, p<0.005) and AIx (0.16 vs 0.04, p<0.03). Hypertensive patients with type A arterial pressure waveform had significantly increased values of the log 24-hour UAE compared to those with type B and C type pressure waveform. The percentage of patients with type A waveform was significantly higher in microalbuminuric patients compared to normoalbuminuric (67 vs 33%, p<0.005). In contrast, the percentage of patients with type B or C waveform was significantly higher in normoalbuminuric patients compared to the microalbuminuric ones (68 vs 36%, p<0.005).

By multiple regression analysis and analysis of variance it was revealed that increased Alx was significantly and independently associated with increased values of UAE (p<0.05). The results reveal that hypertensive patients with MA, exhibited an earlier systolic augmentation of arterial pressure, reflecting more impaired arterial elasticity, compared to normoalbuminurics. These findings suggest that increased UAE accompanies augmented arterial stiffness and may indicate worse cardiovascular outcomes in essential hypertensive subjects.

Key Words: Microalbuminuria

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RELATION BETWEEN THE HYPERTENSION AND BENIGN PROSTATIC HYPERPLASIA IN THE ELDERLY
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Increasing longevity in the developed world means an increasing prevalence of age-related disorders such as hypertension and benign prostatic hyperplasia (BHP). In Vietnam, the prevalence of hypertension has also increased along with age from 4.3% for 15-40 years old to 47.7% for 70 years and older. The spontaneously hyperplasia of the prostate in aging genetic hypertensive rats have shown. Therefore, the aim of this study was to assess the relationship between BHP and hypertension in the elderly hypertensive patients need to be observed about the symptoms and echography of BHP for earlier treatment with the selective antihypertensive therapy and the other treatment options to improve in quality of life.

Key Words: Alpha-adrenergic receptor blockers, hypertension, benign prostatic hyperplasia