Conclusion Ambulatory arterial stiffness index was correlated with tumour necrosis factor-a. Inflammation was relevant to the development of arterial stiffness in prehypertensives.

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IMPACT OF TUMOUR NECROSIS FACTOR-A ON AMBULATORY ARTERIAL STIFFNESS INDEX IN PREHYPERTENSIVES

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Objective To investigate the impact of tumour necrosis factor-a on ambulatory arterial stiffness index in prehypertensives.
Methods One hundred normotensives and one hundred and five prehypertensives were recruited, while one hundred and ten hypertensives were enrolled. 24 h ambulatory blood pressure monitoring (ABPM) was carried out in the three groups, respectively, and ambulatory arterial stiffness index (AASI) was computed. Tumour necrosis factor-a (TNF-a) was measured using radioimmunity kits.
Results Tumour necrosis factor-a and ambulatory arterial stiffness index in prehypertensives (44.21±9.81 pg/ml, 0.42±0.13), were higher than that in normotensives (26.91±12.35 pg/ml, 0.36±0.15), while lower than that in hypertensives (59.74±23.38 pg/ml, 0.49±0.12). Pearson correlation analysis showed that the level of tumour necrosis factor-a was positively correlated with ambulatory arterial stiffness index in prehypertensives ($r=0.513$, $p<0.01$). Multiple linear stepwise regression analysis showed that ambulatory arterial stiffness index still correlated with tumour necrosis factor-a ($b=0.272$, $p<0.01$).