

Components of Arterial Pressure and Its Association with Dietary Inflammatory Potential of Older Individuals: The Multinational Medis Study

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Abstract : The aim of the present work was to evaluate dietary habits' inflammatory potential with various components of arterial blood pressure (hypertension, mean arterial pressure (MAP) and pulse pressure (PP)) in a sample of older Mediterranean people without known cardiovascular disease. During 2005-2011, 2,813 older (aged 65-100 years) individuals from 21 Mediterranean islands and the rural Mani region (Peloponnesus) were voluntarily enrolled. Standard procedures were used to determine arterial blood pressure, as well as PP and MAP, and for the evaluation of dietary habits, lifestyle, anthropometric and clinical characteristics of the participants. A dietary inflammatory index (DII) was assessed based on the participants specific dietary habits, and its calculation was based on a standard procedure. It was reported that the higher the DII level of a diet (adherence to a more pro-inflammatory diet) the greater was the likelihood of having an older adult hypertension [OR=3.82 (95% CI): 1.24 to 11.71]. Moreover, the higher the level of DII (more pro-inflammatory dietary habits) the greater were the levels of MAP [b-coefficient (95% CI): 7.23 (+1.86 to +12.59)] and PP, [b-coefficient (95% CI): 10.86 (+2.70 to +19.01)]. Diet's inflammatory potential is related with various components of arterial pressure. Adherence to a more pro-inflammatory diet seems to be associated with increased arterial peripheral resistance and arterial stiffness.

Keywords : dietary inflammatory index, hypertension, mean arterial pressure, elderly

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