Medical acupuncture and hypertension: What is new?

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Abstract

Medical acupuncture is under extensive investigation over the last years regarding its effectiveness on a variety of symptoms, diseases and syndromes. A large number of experimental and clinical studies, as well as meta-analyses, have documented medical acupuncture's beneficial effects on various disorders, such as hyperglycemia, hyperlipidemia and hypertension. Experimental animal models of hypertension have shown that medical acupuncture can significantly reduce both systolic and diastolic blood pressure. This effect is mediated through various mechanisms, like decreased activity of sympathetic nervous system, reduction of oxidative stress in specific areas of the brainstem (e.g. medulla oblongata), increased activity of endothelial Nitric Oxide Synthase (eNOS) and reduced levels of angiotensin type-II and its receptors. Clinical studies have shown a statistically significant reduction of blood pressure levels when medical acupuncture was combined with classic anti-hypertensive drug treatment, compared to drug treatment alone. Functional MRI studies have revealed increased connectivity of the hypothalamus with other brain areas implicated in blood pressure control (frontal lobe, cerebellum, insular cortex).

Biography

Zogopoulos Panagiotis is a Neurosurgeon specialized in Medical Acupuncture. He is currently the Chief of Medical Acupuncture Department at Metropolitan Hospital, Athens, Greece. He has completed his PhD from the University of Athens, School of Medicine and has received Advanced Clinical Training (Clinical Research Fellowship) at the Neurosurgery Department of Osaka University Hospital in Japan. He has published many papers in various international scientific journals.

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