Ewa Szczepanska-Sadowska et al., J Clin Exp Cardiolog 2014, 5:3
http://dx.doi.org/10.4172/2155-9880.S1.019

OMICS Group Conferences
Accelerating Scientific Discovery

4th International Conference on
Clinical & Experimental Cardiology
April 14-16, 2014 Hilton San Antonio Airport, TX, USA

# Significance of neuropeptides for coexistence of disturbances in central cardiovascular control in heart failure, stress and depression

**Ewa Szczepanska-Sadowska, Cudnoch-Jedrzejewska A, Wsol A and Czarzasta K**
Medical University of Warsaw, Poland

There are solid grounds for recognition of importance of multiple neuronal/neurotransmitter networks in the regulation of the cardiovascular system. Clinical and preclinical studies provide evidence that heart failure is associated with significant changes in central control of some of these systems. In addition, it has been shown that some of the brain's neurochemical pathways, which are involved in central control of blood pressure, play a role in the regulation of emotions and cognitive functions. Stress and depression are regarded as potential challenges for the cardiovascular system, causing inappropriate regulation of cardiovascular parameters and worsening prognosis of heart failure. There is also evidence that heart failure increases sensitivity to stress and depression. Recently, the knowledge of neurochemical background of comorbidity of stress, depression and heart failure increased markedly. Our studies and those of other authors provided evidence for significant role of improper function of neuropeptides, and in particular of angiotensinergic, vasopressinergic and oxytocinergic systems in exaggerated responsiveness of the cardiovascular system to stress in heart failure and depression. Current evidence indicates that inappropriate regulation of release of these neuropeptides and/or expression of their receptors play particularly important role in long-term changes of central cardiovascular control during post-infarct heart failure.

## Biography

Ewa Szczepanska-Sadowska, MD, Ph.D. graduated from the Medical Faculty, Medical University of Warsaw, Poland. Her scientific education includes British Council fellowship and Humboldt Foundation Fellowship. She was a Visiting Professor in the Department of Physiology, Medical College of Wisconsin, USA. Since 1990 she was a full Professor and Head of Department in the Medical University of Warsaw. She was a member of Council of International Union of Physiological Society and other societies. She is a Member of the Polish Academy of Science, Polish Academy of Arts and Sciences and of several international, national scientific societies.

ewa.szczepanska-sadowska@am.edu.pl