Medical Xpress

How can psychological stress be determined in chronic cardiovascular disease?

March 19 2013

An investigation in one of the last issue of *Psychotherapy and Psychosomatics* addresses the evaluation of psychological stress in the setting of chronic cardiovascular disease. In a number of circumstances allostatic systems may either be overstimulated or not perform normally, and this condition has been termed 'allostatic load', or the price of adaptation. Findings from several studies suggest that it is associated with worse health conditions and plays a significant role in the susceptibility, course, and outcome of cardiovascular (CV) diseases. Recently, Fava and colleagues introduced clinimetric criteria for assessing allostatic overload syndrome (AOS) based on: (a) current identifiable sources of distress in the form of acute or chronic stress (the stressor is judged to tax or exceed the individual's coping skills when its full nature and circumstances are evaluated), and (b) psychiatric symptoms (DSM-IV) or psychosomatic symptoms (DCPR) or significant impairment in social or occupational functioning or in psychological well-being occurring within 6 months after the onset of the stressor.

This study aimed to investigate the prevalence of the AOS of Fava and colleagues in patients with chronic CV disease and its relationships with psychosomatic syndromes (Structured Interview for Diagnostic Criteria for Psychosomatic Research; DCPR), psychopathology (Structured Clinical Interview for DSM-IV; SCID), illness representations (Illness Perception Questionnaire-Revised; IPQ-R), and psychosocial functioning (12-item Short Form Health Survey; SF-12). To evaluate AOS, recent and chronic stress, environmental mastery, sleep, somatization, and psychological distress were carefully evaluated in the

clinical interview. Consecutive outpatients with essential hypertension and coronary heart disease (CHD) were enrolled between January and December 2011. Patients with severe CV comorbidity, psychosis, oncology and autoimmune diseases, cognitive impairment, and current alcohol or any other substance abuse were excluded. For all patients, body mass index (BMI) and blood pressure were recorded at the entry. All patients gave their informed consent. The study was approved by the local ethics committee. Because of refusal to participate, clinical problems, and other difficulties, 116 of 138 patients (84%) entered the study (84 with essential hypertension and 32 with CHD). Patients with AOS showed significant poorer mental functioning (SF-12 MCS), higher scores on the IPQ-R consequences (perception of severity and effects of the illness on individual life) and emotional representations (emotional reactivity to the illness) subscales, and a higher prevalence of DSM IV diagnoses. Furthermore, a 2-fold significant higher prevalence of DCPR clusters of abnormal illness behavior, irritability, and somatization (though the latter was near to statistical significance) was found in the AOS group compared to the comparison group. It is noteworthy that DCPR demoralization was more than 5-fold higher in AOS patients than in those without AOS. Also, the DCPR syndrome of illness denial was diagnosed 3 times more frequently in the AOS (31%) group than in the comparison (10%) group [$p = 0.03$]. In this exploratory study the investigators showed for the first time the prevalence of AOS in outpatients with chronic CV illness. Within this sample, AOS is characterized by poorer psychosocial functioning, higher rates of psychopathology, and a higher disease-related emotional burden (perception of the impact of the illness on individual life) with associated correlates of abnormal illness behavior, somatization symptoms, and irritability.

It is of interest that AOS partially and independently overlapped with demoralization, a feeling state characterized by an inability to cope with problems, hopelessness, and helplessness which may dramatically

increase the subjective perception of being overloaded by stressful demands, as shown by the association with the mental component score of SF-12. Apart some limitations, these findings show that a reliable evaluation of allostatic overload may help to identify those conditions that, by exceeding individual resources, may constitute a danger to health such as demoralization. The relevance of diagnosing AOS is particularly important in cardiology because of the established association of chronic stress with negative prognostic factors. Furthermore, diagnosing AOS may help target treatment to psychological functions enhancing wellbeing outcomes.

More information: Porcelli P. Laera D. Mastrangelo D. Di Masi A. Prevalence of Allostatic Overload Syndrome in Patients with Chronic Cardiovascular Disease. *Psychother Psychosom* 2012;81:375–377

Provided by Psychotherapy and Psychosomatics