

The Nature of Psychophysiological Disorders Among Chernobyl Nuclear Station Accident Recovery Workers

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Asthenic and asthenoneurotic syndromes are the basis for development of chronic diseases of central nervous system in recovery workers after Chernobyl accident. They have been formed long before main disease became nosologically defined. The mechanisms underlying clinical and behavioral manifestations of chronic exhaustion and asthenia among recovery workers of young and middle age have been investigated. On the data of long-standing examinations (1991 - 2008) it has been observed intensive increase of irritative and dystrophic changes, as well as depletion of functional activity of CNS. Relatively young age of recovery workers (35 - 45) points to an early beginning and unfavourable course of vessel changes, that is the index of accelerated aging of recovery workers organisms. Object: correction of the workers psychophysiological condition in the postextremal period for the medical - rehabilitation process and its effective assess by the objective controlling methods of psychophysiological condition. Methods: EEG and evoked potential (EP), computer analysis of the bioelectrical brain activity, the psychodiagnostic questionnaires, confrontation of the complex psychophysiological examine results with the clinical - laboratory data. Results: the psychoemotional strain and the reactive uneasiness were demoted to the norm, state of health and mood were evidently improved, the tone of a sympathetic department of vegetative nervous system was demoted, the parameters of the EEG and the EP became normal, the structure of the field of biological potentials of the cerebral cortex was restored, the functional condition of a brain was optimized without a sedation, dream became normal. Deduction: The mental condition of the workers is instability. It cause an attrition of organism's resources under action of the strong psychological and physiological stress. It has the neurophysiological picture, received by means of the modern electrophysiological diagnostics methods. Pathogenesis of the psychophysiological disorders is defined by the systemic infringements in brain functional activity. Dysfunction of cortical and subcortical structure can be subject to the adequate psychophysiological correction. In the course of the correction it is objectively observed ordering of the structure of the brain biological potential field. It correlates with normalization of the workers clinical condition.