

SOCIALLY-PSYCHOPHYSIOLOGICAL ESTIMATION OF A STATE OF HEALTH SUFFERED FROM HEAVY ACUTE IRRADIATION IN FAILURE OF CHERNOBYL ACCIDENT (25 YEARS OF SUPERVISION)

VYu, Metlyeva, N, Bushmanov, A

Burnasyan Federal Medical Biophysical Center of the Federal Medical Biological Agency of Russia, Moscow, Russia (nmetlyeva@fmbcfmba.ru)



1. Objective. The clinico-psycho-physiological estimation of possibility of recover from heavy Acute Radiation Sickness and local radiation injuries of G.O.I. the Victim in Failure of Chernobyl Accident (25 Years of Supervision).

2. Material and methods: G.O.I. as the operator of 4th block of Chernobyl since 1983 till April, 1986. In April, 1986, at the age of 26 years, has transferred acute radiation sickness III severity levels from the general uniform $\gamma\beta$ -radiation, radiating burns of 80 % of a surface of body I-II of degree, 30 % - II degrees. The Bone marrow syndrome of III degree. Radiating hyperthyreosis easy degree. Radiating keratitis. The general dose on a body, according to cytogenetic research has made 2,7 Gr., a dose on a thyroid gland – 1125 бэр. Psycho-physiological research was spent with use of the automated programmno-methodical complex "the Expert" intended for research of personal properties of the person, cognition and intellectual features of the person within 13 years (1999-2011). Estimation of efficiency of mental adaptation under test MMPI spent taking into account height of an indicator of T-points. Borders of population statistical norm on a scale of T-points are 70 points (M+2 sigma) and 30 T-points (M-2 sigma), with probability of 95 % limiting studied set. Liftings MMPI for 70 T-points with high to (95 %) reliability specify in the raised probability of infringements mental and social adaptation. The height of indicators of T-points between 70 and 80 T-points specifies in unstable mental adaptation, above 80-points – on an overstrain of mental adaptation. Deviations from average values MMPI downwards less prognosis are significant, than liftings. Unlike MMPI, in father-in-law Kettella prognosis the significant can be both liftings, and decrease in values of separate factors. Average value of any factor of the test of Kettella is 5,5 wall. The expressed deviations from averages are values of factors more than eight and less three.

3. Results. The average profile of multilateral research of the person (MMPI) (fig. 1) and dynamics of indicators on years of supervision (1999-2011г.г.) are registered in borders of population statistical norm (<70> 30) on a scale of T-points and testify to efficiency of psycho-physiological adaptation of G.O.I., which has transferred acute radiation sickness III severity levels and plural local radiation injuries I-II of degree (80 %). Dynamics of an emotional pressure and intensity of its mental adaptation (the test of Kettella) correspond to relative density of infringements of mental adaptation, characteristic for the period of stable adaptation. Tendency to hyperthymical type of the person, not falling outside the limits normal indicators, with characteristic optimism for this condition, sociability, high activity, vigor, ease to dialogue promote efficiency of psycho-physiological adaptation. Rather high indicators of intelligence (factor B-8-7-6-5 of walls) and is figurative-logic thinking (there are complexities in analitiko-synthetic cogitative activity) - the test of Ravena remain. Operator abilities of G.O.I. are kept in full at level of indicators of operation personnel of the atomic power station and it can perform work of the operator without contact to radiation. Efficiency of psycho-physiological adaptation depends not only on a dose of an irradiation and weight of the transferred disease, but in more to a measure, from premorbidal properties of the person of the victim and its sociolabor installation.

Conclusions. Specific features of psycho-physiological adaptation of G.O.I. its expressed personal lines, despite heavy acute radiation sickness and local radiation injuries, appreciably correspond to requirements of environment and have defined its behavior and recover.

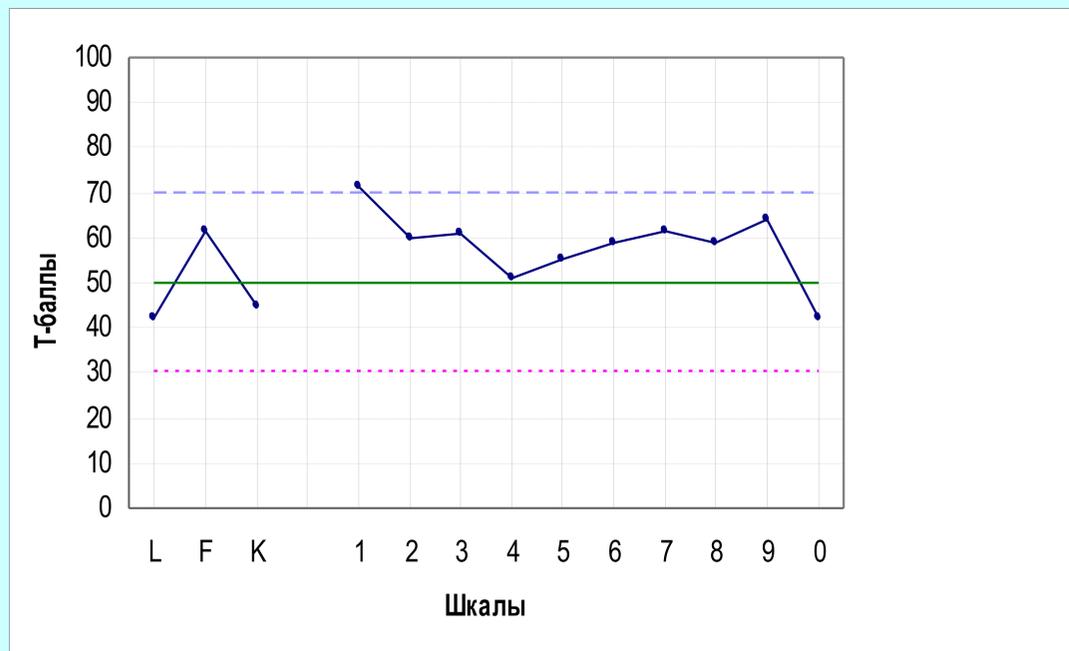


Fig 1. Average profile of test MMPI of Patient G.O.I. with remote consequences acute radiation sickness of III item of weight, the victim in failure the Chernobyl Nuclear Power Station, during 1999-2011