

## Cited Literature

1. **Devidze N.** - *Behavior of rats in the conditions of psychogenic stress and their pharmacological correlation.* PhD Diss. Tbilisi, 1998
2. **Khananashvili M. M.** - ***Psychogenic stress: Theory, Experiment, Practice.*** Vestnik, Russian Academy of Medical Sciences, Moscow. Medicine. 1998. pp.13-16.
3. **Garkavi L. Kh. Kvakina E. B., Ukolova M.A.,** - *Adaptive reactions and resistance of the organism – Pochov, publishing house of Rostov University.* 1979. P.126.
4. **Zilber A.P. Tsanova G.M.** - *Essays of Clinical Emergency Medicin– Tbilisi. Sabchota Sakartvelo.* 1982. P.368
5. **Meerson F.Z.** – *Adaptation, Stress and Preventive Treatment – Moscow. Science.* 1981.p.278.
6. **Ju. Shuteu, T. Bendile, A. Kafritse and others** –*Shock Terminology and Classification. Shock cell. Pathophysiology and treatment. – Bukharest.* 1981. p.515.
7. **Rosin Ja. A.** - *Function Regulation – Moscow. Science.* 1984. p.172.
8. **Kassil G. N.** – *Organism internal environment, Moscow. Science.* 1983. p.224.
9. **Selye H.** – *Stress without distress – Moscow. Progress.* 1982. p.127.
10. **Bazarnova M.A.** – *Hormones in the norm and pathologies // book.: Manual on Clinical Lab Diagnostics. Part 3, Cinical iochmistry/edit.: M.A. Bazarnova and V. T. Morozova, Kiev, Zdorovia, 1986. cp5-64.*
11. **Mason J.W.** - *A review of psychoendocrine research on the sympathetic – adrenal medullary. system. psychosom. Med.* 1968, v.30, p.631-653.
12. **Khananashvili M.** - *Informational Stress. National Academy of Sciences of Georgia Publishing House, Tbilisi, 2008. pp.21-26.*
13. **Canon W.B.** - *The emergency function of the adrenal medulla in pain and the major emotions Am. J. Physiol.* 1914. V.33. P. 356-372.
14. **McEwen B.S. Wingfield J.C.,** - *The concept of allostasis in biology and bio-medicine. Horm. Behav.* 2003. 43. P. 2-15.
15. **McEwen B.S.** - *Stress adaptation, and disease. Allostasis and allostatic load.*

ann N.Y. Acad. Sci. 1998. 840. P. 33-44

**16. Selye H.** - *Stress and the general adaptation syndrome*, *BMJ*, 1950, p. 1383-1392.

**17. Selye H.** - *Stress without distress*. – N.Y., *Holder and stoughton*, 1974. P.178-192

**18. Dhabhar F.S. Satoskar A.R. Bluethmann H. David J.R. McEwen B.S.** – *Stress – induced enhancement of skin immune function: A role for Y interferon*. *Proc. Natl. Acad. Sci.* 2000, USA 97, 2846-2851.

**19. Dayas C.Y. Buller K.M. Crane K.W, Xu Y. Day T.A.** - *Stressor categorization: acute physical and psychological stressors elicit distinctive recruitment patterns in the amygdala and in medullary noradrenergic cell groups*, *Eur. J. Neurosci*, 14, 1143-1152. 2001.

**20. Reyes T.M. Walker J.R. Decino C. Hogenesch J.B, Sawchenko P.E.** - *Categorically distinct acute stressors elicit dissimilar transcriptional profiles in the paraventricular nucleus of the hypothalamus* *J.Neurosci.* 23, 2003, 5607-5616.

**21. Pacak K. Palkovits M.** – *Stressor specificity of the central neuroendocrine responses: implicetions for stressrelated disorders*. 2001. *Endocr. Rev.* 22(4), 502-548.

**22. Ghi P. Ferretti C. Blengio M.** - *Effects of different types of stress on histamine – H<sub>3</sub> receptors in the rat cortex*, *Brain Res.* 1995, 690, 104-107.

**23. Bartanusz V, Jazova D. Bertizi L.T. Tidors F.J.H. Aubry J.M , Kiss J.Z.** *stress – induuced increase in vasopressin and corticotrophin – releasing factor expression in hypophysiotropic paraventricular neurons*. *Endocrinology.* 1993, v.132, p.895-902.

**24. Bruhn T.O. Plotsky P.M, Vale W.W.** *Effect of faraventricular lesions on Corticotrophin – Releasing Factor (CRF) – like Immunoreactivity in the STalk – Median Eminence: Studies on the Aolrenocorticotrophin Response to Ether Stress and Exogenous CRF//Endocrinology – 1984. y.114, №1, p.57-62.*

**25. Akhladze K., Khananashvili M.**– *Changes of glucose and cortisol indicators when testing the reactions of diffent difficulty*. *Sukhumi State Uversity Works XIV. Series of Natural sciences. Tbilisi 2016 pp. 143-154.*

**26. Mason J.W.** *A review of psychoendocrine research on the sympathetic – adrenal medullary. system.* *psychosom. Med.* 1968, v.30, p.631-653.

27. **Walker C.D., Sapolsky R.M., Meaney M.J. et.al.** Increased pituitary sensitivity to glucocorticoid feed back during the stress nonresponsiwe period in the neonatal tat// *Endocrinology*, v.1996, №4, p.1816-1821.

28. **Selye H.** – *Stress without distress* – Moscow.Progress. 1979. p.124.

29. **Van Der Does FE, De Neeling JN, Snoek FJ, Kostense PJ, Grootenhuis PA, Bouter LM, Heine RJ:** Symptoms and Well – being in relation to glycemic control in type II diabetes, *Diabetes Care*, 1996, 19, 204-210.

30. **Kemmer FW, Bisping R, Steingruber HJ, Baar H, Hardtmann F., Schlayhecke R., Berger M:** Psychological stress and metabolic control in patients with type I diabetes mellitus. *N. Engl J.Med.*, 1986, 314, 1078-1084.

31. **Horizontov P.D. Belousova O. I. Fedotova M.I.** *Stressand Blood System*, Moscow. Medicine. 1983. p.20.

32. **Valdman A.V., kozlovskaya M.M. Medvedev O.S.** *Pharmcologica regulation of emotional stress. M. Medicine.* 1979, p.359.

33. **Jhukov DA.** *Stress psychogenetics. Behavioural and endocrine correlations of genetic determinants during an uncontrolled situation. St. Petersburg.* 1997. p.150.

34. **Khananashvili M. M.** *Book: Patophysiology. moscow. Tomsk Uives=rsity Publishing House, 2001. p.683-704.*

35. **Khananashvili M. M. Reberg G.** *Self-regulation of behavior in the condition of increasing burdens on analytical activity of the brain in cats. Journ. V.N.D.. B.H.Д.* 1981. v. 31. №4. c. 123- 129.

36. **Valdman A.V.** *Neural system and hemostasis// Book: Hemostasis// Edited by. P.D. Gorizontova, 2<sup>nd</sup> edition – Moscow. Medicine 1981. p.29-73.*

37. **Fedorov B. M.** – *Stress and vascular system 1991. M. pp.178-190.*

38. **Vermentten E., Bremner J.D.** *Circuits and system in stress: I.Preclinical studies. Depress Anxiety.* 2002, v.15, p.126-147.

39. **Kulagin V.K.** *Pathological physiology of trauma and shock – L., Medicine.* 1978. p.296.

40. **Meerson F.Z.** *Adaptation, stress and preventive treatment – Moscow. Science.* 1981. p.278.

41. **Papin L.E.** *Biochemical mechanisms of stress*, Novosibirsk. Publishing House. Science. 1983. p.232.
42. **Schulz C., Lehnert H.** – *Activation of noradrenergic neurons in the locus coeruleus by corticotrophin – releasing factor, a microdialysis study.* *Neuroendocrinology*, 1996, v.63, p.454-458.
43. **Rozen V.B.** *Basics of endocrinology*, Moscow. Higher School, 1980. p.133.
44. **Grigorian G.A.** *Stress and drug addiction (experiments on animals)* *Journal of Higher Neural Activity*. 2004 v. 54 №3. p. 304-319.
45. **Gardner C. R.** *Recent developments in 5-HT-related pharmacology of animal models of anxiety.* *Pharmacol. Biochem. Behav.* 1986. v.24#5. p.1474.
46. **Jakobs B. L. Azmitia E.C.** *Structural and function of the brain serotonin system.* *Physiol. Rev.* 1992. v. 72. p. 165-229.
47. **Blum K. Braverman E. Holder J. Lubar J. et al.** – *Reward deficiency syndrome: a biogenetic model for the diagnosis and treatment of impulsive, addictive and compulsive behaviors.* *Jour. Psychoactive Drugs*. 2000. v. 32. p.1-112.
48. **Chikadze A.** *Specifics of regulation of BHD in the conditions of pathology in cats.* *Ref. PhD. Diss. Tb.* 1990. p.79
49. **Sudakov K.V.** *Emotional stress and psychosomatic pathology.* *Journal, bulletin. <<Exper. Biology and Medicine.>> PAMH. . 1998.*
50. **Khananashvili M. M.** - *Psychogenic stress: Theory, Experiment, Practice.* *Vestnik, Russian Academy of Medical Sciences, Moscow. Medicine.* 1998. pp.13-16
51. **Akhaladze L. Khananashvili M.** – *Behavioral and emotional changes at various stages of development of psychogenic stress.* *Sukhumi University works XII.. Works of Natural Sciences Sukhumi State University. Tbilisi – 2014.* pp.100-106;
52. **Khananashvili M.M.** *Theoretic assumptions of start and development of the problem of stress.* Ed. “*Journ. Bull. Exp.Biol. and Medic.*” PAMH, M.: 1988. p.
53. **Gogobridze M. M.** *Peculiarities of rat behavior in the conditions of increasing burden on the function of short-term memory.* *Materials of the 10<sup>th</sup> symposium <<Experimental and clinical neuroses.>>.* Berlin. 1988. p. 57.
54. **Khananashvili M. M. Chkhubinashvili L. G., Mesheriakov V.** *Preneurotic*

*conditions and informational neuroses during the complex integrated activity of brain, ed. Academy of Sc., Georgian SSR, 1976, №1, p.1-8.*

**55. Gogoberidze M. M.** Peculiarities of formation of short-term memory in rats during various time intervals between sample collecting. *Journ. High. Neur. Activ.* 1989. v.39 №3. c. 393-498.

**52. Khananashvili M.M.** Theoretic assumptions of start and development of the problem of stress. Ed. "Journ. Bull. Exp.Biol. and Medic." PAMH, M.: 1988. p.

**53. Gogobridze M. M.** Peculiarities of rat behavior in the conditions of increasing burden on the function of short-term memory. *Materials of the 10<sup>th</sup> symposium <Experimental and clinical neuroses.>.* Berlin. 1988. p. 57.

**54. Khananashvili M. M. Chkhubinashvili L. G., Mesheriakov V.** Preneurotic conditions and informational neuroses during the complex integrated activity of brain, ed. Academy of Sc. Georgian SSR, 1976, №1, p.1-8.

**55. Gogoberidze M. M.** Peculiarities of formation of short-term memory in rats during various time intervals between sample collecting. *Journ. High. Neur. Activ.* 1989. v.39 №3. c. 393-498.

**56. Ghogoberidze M.** - Peculiarities of self-regulation of behaviour and neurophysiological mechanisms of higher nervous activities and information pathology of higher nervous action at various stages in Lewis rats. *Doctoral dissertation.* Tbilisi, 1994.

**57. Wiener H.** Perturbing the organism. *The biology of stressful experience.* Chicago: University of Chicago Press, 1992. P.34 - 42

**58. Nemeroff C.B.** The corticotrophin – releasing factor (CRF) hypothesis of depression: new findings and new directions. *Mol. Psychiatry:* 1996, v.1, 336-342.

**59. Bezverkhaia T.P.** Adrenal physiology // *Book: Disorders of adrenal function during endocrine diseases/Ed. I.V.Komisarenko.* – Kiev. Zdorovia. 1985. p.5-67.

**60. Pilenov A.I.** - Hypothalamic neural secretion. *Leningrad.Science.* 1971. p.159.

**61. Judaev N.A. Evtikhina Z.F.** Modern knowledge of hypothalamic-release factors // *Book.: Modern questions of endocrinology/ Ed. N.A. Judaeva.* – Moscv. Medicine. 1972. p.8-20.

**62. Dilman V.M.** *Large biologic clock,* Moscow. Knowledge 1986. p.256.

**63. Makara C.B, Kvetransky R, Jezora D. et.al.** Plasma catecholamines do not participate in pituitary – adrenal activation by immobilization stress in rats with

*transection of nerve fibers to the median eminence*// *Endocrinology*. 1986, v.119, №4, p.1757-1762.

**64. Hylka V.W. Sonntag W.E. Meites J.** *Reduced ability of old male rats to release ACTH and corticosterone in response to CRF administration*// *Proceeding of the society for Experimental biology and medicine*. 1984, v.175, p.1-4.

**65. Plotsky P.M., Vale W.K.** *Hemorrhage – induced secretion of corticotrophin – releasing factor. Like immunoreactivity and its inhibition by glucocorticoids* // *Endocrinology*. 1984, v.114, №1, p.164-169.

**66. Morozova M.C. MMakarovskaja E.E.** *ACTH Mechanism of action and when discharge is within normal and during pituitary basophilia*// *Book.: Modern questions of endocrinology*// Ed. N.A. Judaeva, - Moscow.Medicine.1975. iss. 5, p.29-44.

**67. Bing R.F, Schulster D,** *Steroidogenesis in isolated adrenal glomerulosa cells: Response and effect of potassium, serotonin and (ser<sup>1</sup>-Aia<sup>2</sup>) – angiotensin. II*//*J.Endocrinology*, 1974, v.74, p.261-272.

**68. Mc Cann S.M. Ajika K. Fawcett C.P. et.al.,** *Hypothalamic control and inhibiting neurohormones*//In:*Hormone metabolism and stress. Recent progress and perspectives: proceeding of an international symposium. Smolenice. September 17-20, 1972, /Ed.S. Nemea R. Bratislava, 1973, p.67-77.*

**69. Baranov V.G. Leibson K.G. Savchenko O.N. and others** - *Physiology of endocrine system. Tbilisi, 1991, p. 323-333.*

**70. Sergeev P.V.** *Steroid hormones, Moscow. Medicine. 1984. p.240.*

**71. Fulkerson W.J. Tang B.Y.** *Ultradian and circadian Rhythmus in the plasma Concentration of cortisol in Sheep*// *J.Endocr.* – 1979, v.81, p.135-141.

**72. Medvedeva N.A., Medvedev O.C.** *Glucocorticoids and humoral regulation of blood circulation. Humoral factors in regulation of adaptive reactions of cardiovascular system*//*Results of Science and technique. Human and animal physiology, Москва. Медицина Moscow.Medicine. 1990. t.41, p.79-83.*

**73. Danielov M.M.** *Hormonal and hemodynamic shifts during post-aggressive reaction of organism*// *PhD. Diss. in med.sc., Tbilisi. 1985. p.203.*

**74. Sapolsky R.M. Krey L.C. Merwen B.S.** *stress Down – regulates corticosterone receptors in a site – specific manner in the brain*// *Endocrinology*, - 1984, v.114, №1, p.287-302.



**75. Akhaladze L. Khananashvili M. Chikhladze** – Changes of testing protective reactions of various complexity. *Sokhumi University Works. Series of natural Sciences. Tb. 2011.pp. 58-66.*

**76. Crassler J., Krentnansky R., Jarova D., Dobrakorova M., Hemorrhage** – evoked hormonal responses and their changes in rat previously exposed to immobilization stress// *stress: Neurohumoral and humoral mechanisms/ Ed. C.R. Van Loon, R. Krentnansky, R. McCarty, J.Axelrod – New-York, Cordon and breach Science Publishers, 1989, p.665-677.*

**77. Vigas M.** Neuroendocrine responses to psychosocial and somatic stress in rat and humans//*stress: Neurohumoral and humoral mechanisms/ Ed., G.R. Van Loon, R. Kvernansky, R.McCarty, J.Axelrod. – New-York, Cordon and breach science Publischers, 1989, p.15-28.*

**78. Lilly M.P., Endelang E.C., Cann D.S.** Responses of cortisol secretion to repeated Reamorrhage in the anaestherized dog// *Endocrinology. 1983, v.112, p.681-688.*

**79. Kubo T., Mumakura H., Endo S., Hagiwara Y., Fukumori R.** Angiotensin receptor blockade in the anterior hypothalamic areal inhibits stress – induced pressor responses in rats. *Brain Res Bull. 2001, 56, 569-574.*

**80. Saiki Y, Watanabe T., Tan N., Matsuzaki M., Nakamura S:** Role of central ANC // receptors in stress – induced cardiovascular and hyperthermic responses in rats. *Am J. Physiol. 1997, 272, R26-R33.*

**81. Akhalaze L.** – Changes of biochemical indicators at various stages of the development of psychogenic stress. *Monograph. Publishing house Meridiani 2013 pp. 63-71.*

**82. Yagiz Üresin, Bahar Erbas, Mehmet Özek,** Lasartan may prevent the elevation of plasma glucose levels induced by chronic stress. *Pol, J.Pharmacol... 2004, 56, 271-273.*

**83. Armario A. Marti J, Gil M.** The serum glucose response to acute stress is sensitive to the intensity of the stressor and to habituation. *J. Psychoneuroendocrinology, 1990, 15(5-6):341-7.*

**84. Raikkonen K., Keltikangas – Jarvinen L., Adlercreutz H., Hautanen A:** Psychological stress and the insulin resistance syndrome: *Metabolism, 1996, 45, 1533-1538.*

85. **Wright J.W., Hardling JW.** Brain angiotensin receptor subtypes in the control of physiological and behavioral responses. *Neurosci Biobehav Rev*, 1994, 18, 21-53.
86. **Hilgers KF, Veelken R., Rupprecht G, Reeh PW, Luft FC, Feiger H, Mann JFE:** Angiotensin II facilitates sympathetic transmission in rat hind limb circulation. *Hypertension*, 1993, 21, 322-328.
87. **Yang G., Wan Y., Zhu Y:** Angiotensin II an important stress hormone. *Biol Signals*, 1996, 5, 1-8.
88. **Nonogaki K. Iguchi A.** Stress acute hyperglycemia and hyperlipidemia: role of the autonomic nervous system and cytokines. *Trends Endocrinol Metab*, 1997, 8, 192-197.
89. **De Boer SF. Koopmans S., Slangen J., Van der Gugten J.** Plasma catecholamine, Corticosterone and glucose responses to repeated stress in rats: effect of interstressor interval length. *J. Physiol behav*, 1990 Jun; 47(6):17-24.
90. **Khananashvili M. M., Domianidze T. G.** – Method of Modelling Neurosis. Authorship certificate, №1506474, 1989. USSR.
91. **Gellerman S.W.** Change orders of alternating stimuli in visual discrimination experiments. *J. Genet. Psychol*, 1933. V.42, P.207-208.
92. **Hall C.S.** - Emotional behavior in the rat. I. Defecation and urination as measures of individual differences in emotionality. *J. Comp. Psychol*. 1934. V. №2, P.385-403.
93. **Korda M.J., Biggio G.** Stress and gabaergic transmission biochemical and behavior studies. *Advances in biochemical psychopharmacology*. 1986, V.41, P.121.
94. **Oelkers W. et.al.,** In: *Rationell Diagnostik in der Endokrinologie* (Ziegler R, et.al. eds) Stuttgart: Thieme, 137. 1993.
95. **Pisan T., Gebski C.P., Leory E.T. et.al.** Accurate Direct Determination of Low density Lipoprotein cholesterol Using an Arch. *Pathol Lab Med*. 1995; 19:1127.
96. **Tiets NW (Hrsg).** *Clinical Guide to Laboratory Tests, Auflage*. Philadelphia. PA; WB Saunders Company; 1995:266-273.
97. **Valdman A.V. Ignatov Yu.D.** -Central mechanisms of pain – Leningrad. *The science*. 1976. P.280



- 98. Khananashvili M.M.** - *Self-Regulation of Higher Nervous Activity of Animals in Preneurotic State. Examination of Mechanisms of Neural Activity.* M.: Science, 1984. P. 228-233.
- 99. Kuziomkin V.A.**.. *On Polyfunctional Analysis of Adaptive Reactions during the Modeling of Mental Tension, uman Physiology*, 1982. т.8, №1, ;;P.100-103.
- 100. Meerson F.Z.**.. *Physiology of the Processes of Adaptation*, M., 1986, P.492-520.
- 101. Teplov S.I.** Hormonal Factors of Regulation// In the book.: *Phisiology of Blood Circulation.* Leninrd. Science. 1986. P.94-111.
- 102. Akhaladze L., Khananashvili M., Chikhladze M.,** - *Change of Biological Indicator at Various Stages of the Development of Psychiogenic Stress. Sukhumi State University International Periodical Journal "Education". #2. Tbilisi \_ Sukhumi.* 2010. P. 81\_88.
- 103. Bremner J.D. Krystal J.H., Soutwick S.M. Charney D.S.** – *Noradrenergic mechanisms is stress and anxiety: Preclinikal studies. Synapse.* 1996. V.23. P.28-38.
- 104. Khananashvili M.M.** *Pathology of Higher Neural Activity (Behaviour) M. Meicine* 1983. P 288.
- 105. Khananashvili M.M.** – *In the book: Dtsregulatory Pathology. Guideline for Doctors and Biologists.* M.: Medicine, 2002. P. 294-306.