intensifies the shifts only 1.2, 2.4 and 3.0-fold accordingly. At simultaneous EE and LNG introduction in all tested doses the TFI markers level shifts and LPO rate summarized incompletely, with the dosage increase the summation degree reduced.

#### Conclusions

- 1. At oral introduction in the dosage equivalent to antiovulatory dose for a human being EE lowers the AOP, accelerates the LPO and TFI and reduces the TT. The effects intensify with the introduction duration increase.
- 2. Oral introduction of LNG in equivalent doses causes less signified LPO, AOP, TFI and TT shifts of the same directivity intensifying with the introduction duration increase. **3.** At combined introduction of EE and LNG their effects on the TFI, LPO and AOP summarize only partially. **4.** An antioxidant (DM) introduction simultaneously with EE or LNG eliminates their effects on the LPO, AOP and TFI. **5.** Between the AOP of thrombocytes and TT there is a close, and between the LPO acceleration degree and TT inverse, relationship.

### References:

- 1. Čheung M.C., Walden C.E., Knopp R.H. / Metabolism. 1999. 48. –5. P. 658-664. Cushman M., Cushman M., Meilahn E.N. e.a. / Arterioscler. Thromb. Vasc. Biol. 1999. 19. –4. P.893-9.
- 2. Ranganatan L.R. L.R.Ranganatan, J.Christifides, E.J.Semple / Ann. Bioch. 1996. 33 (6). P. 555-560.
- 3. Simpkins J.W. J.W.Simpkins, S.H.Yang e.a. / Cell. Mol. Life Sci. 2005. 62 (3). P. 271-280.
- tevenson J.C,. A.Oladipo, Manassiev N.e.a. / Br. J. Haematol. 2004. -124 (6). P. 802-808.
- 5. Stevenson J.C., Oladipo A., Manassiev N. e.a. / Br. J. Haematol. 2004. -124 (6). P. 802-808.
- 6. Sung B.H., M.Ching, Izzo J.L., e.a. // J. Hypertens. 1999. 17. 4. P. 523-528.
- 7. Thijs A., Thijs A., Stehouwer C.D./ Semin. Vasc. Med. 2003. 3 (1). 3. P. 85-92.
- 8. Wiegratz I., Lee J.H., Kutschera E. e.a. // Contraception. 2004. 70 (2). P.97-106.
- aluda V.P., Barkagan Z.S., Goldberg Ye.D. and others. Laboratory methods of hemostsis system research. Tomsk. 1980 p. 310.
- 10. Bokarev I.N. Differential diagnostics and therapy of internal diseases. Bleeding sickness or hemorrhagic syndrome. Differential diagnostics. M., 2002. p. 75.
- 11. Byshevsky A.Sh., Galyan S.L., Polyakova V.A. and others. // Materials of the Conference "In-patient hemostasiology and hemorheology in cardio-vascular surgery" M. 2005. pp.57-58.
- 12. Byshevsky A.Sh., Mikhailova L.V., Alborov R.G. and others. // Patent № 2219546, registered in the inventory record of RF 20.12.2003.
- 13. Byshevsky A.Sh., Mokhnatov V.S. // System of blood clotting and clot lysis: materials of III All-Russia Conference. Lvov-Kiev: Zdorovya, 1969 pp. 220-221.
- 14. Byshevsky A.Sh., Mukhacheva I.A., Shafer V.M. / Inventor's certificate № 1659855 Bulletin № 24. 30. 06. 1991.

- 15. Galyan S.L. Preventing and inhibiting of hemostasis disorders caused by thrombinemia with vitaminsantioxidants: Abstract Chelyabinsk, 1993. p. 44.
- 16. Kuzemin A.A. / Contraceptives and woman's health M: 1998. 1. pp. 2-10.
- 17. Momot A.P., Yelykomov V.A., Barkagan Z.S. / In-patient laboratory diagnostics 1999 4 –pp. 17-20.
- 18. Serov V.N. Oral hormonal contraception / Serov V.N., Paukov S.V. // Moscow 1998 p. 113.
- 19. Umutbayeva M.K. / "Yugra-hemo" Khanty-Mansiysk: RAMS -2004 pp. 48-49.
- 20. Ushkalova V.N., Ionidis N.V., Deyeva Z.M. / Lab. port. 1987 -6 pp. 446-460.
- 21. Shapovalov P.Ya. Coagulation and trombocyte hemostasis, thrombin tolerance at ethinyl estradiol and levonogestrel introduction, shifts correction with antioxidants: Abstract Chelyabinsk 2001 p. 44.

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### ANTIBIOGRAM ANALYSIS IN PATIENTS WITH II-III DEGREE BURNS

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Antibiotic therapy takes a leading place in complex treatment of patients with II-III degree burns complicated with pyoinflammatory processes of soft tissues. Nowadays growth of causative agents' multiresistant strains to germicides in the given patient group is registered. That is why the disease differs from others with long-term and persistent treatment course, appreciation of treatment.

Purpose: To investigate the etiological structure of the causative agents and the spectrum of their sensibility to germicides at burn disease.

Materials and methods: In the paper the bacte<sup>B</sup> riological research analysis of the material from the burnt surfaces of 199 patients and autogenerated causative agents' sensibility to 29 germicides with the disco-diffuse method using.

Results: The contamination of the material under examination made 96,5%. The dominant activators of the burnt infection were S.aureus (50,8%) and Ps.aeruginosa (20%). From opportunistic enterobacteria Proteus (6,7%), E.coli (5,6%), Enterobacter (5,1%), Klebsiella spp. (2,6%) were plated most commonly. In 50,2% of cases combined infection forms consisting of two and more kinds, being formed on account of tolerant associations, were marked: S.aureus and Ps.aeruginosa (51,0%), S.aureus and enterobacteria of different kinds (31,0%). The antibiogram studies demonstrated nonsensibility of S.aureus to penicillins (0,9%). The most effective preparations against the given activator were: ofloxacin (45,7%),

ciprofloxacin (32,4%), carbapenems (45,7%), rifampicin (44,8%), fusidic acid (32,4%), gentamicin (22,9%). From the cephalosporin group S. aureus was sensible to ceftriaxone in 28,6% of cases and to cefazolin in 24,8% of cases, and to the representatives of the third generation – to cefoperazone (9,2%) and ceftazidine (10,5%). Antipseudomonal activity was manifested in carbapenems (53,8%) and monofluorchinolones (ofloxacin - 43,6% and ciprofloxacin - 41,0%). From the aminoglycoside group the activator was more sensible to amikacin (20,5%), than to gentamicin (15,4%). Only ceftazidim from the cephalosporin series was active in regard to Ps.aeruginosa in 25,6% of cases. The bacteriostatic effect to S. aureus and Ps.aeruginosa occurred on the part of semisynthetic tetracyclines in doxycycline (13,3% and 25,6% accordingly). The increase of enterobacteria was suppressed in the majority of cases by: ceftriaxone (41%), ceftazidime (35,9%), imipenem (46,2%), gentamicin (43,6%), ciprofloxacim (41,0%), piperacillin (28,2%), chloramphenicol (20,5 %).

Conclusion: Antibacterial therapy of burn disease infectious complications is determined by the spectrum of probable activators. Monofluorchinolones and carbapenems turned out to be the most effective antimicrobial agents as the result of the research.

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# THE CYTOKINE PROFILE IN THE ACUTE CRYOTRAUMA

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Nowadays cold trauma is considered to be one of the most important causes resulting in high rate of disability or death among patients. The most frequent manifestation of cold trauma is frostbite occurring both in high and low latitudes. One may sustain cryotrauma even at warm weather.

The main aims this study are to estimate the adaptive mechanisms of the organism in developing cold trauma and investigate interleukin1  $\beta$  (IL-1  $\beta$ ) and the factor of tumour necrosis  $\alpha$  (TNF  $\alpha$ ) under the influence of potent irritant.

Materials and methods: the experiments were carried out on the male mature Vistar rats with the body weight 200-240gr. The models of frostbite induced by chlorethyl were employed within one week after damage. The withdrawal of rats was implicated by means of decapitation under etheric anesthesia in an hour, 24 hours, on fifth and seventh days. The approval of Ethics Board of the Northern state medical university was obtained. «The Regulations of the work

with experimental animals » were observed according to the Enactment of Ministry of Health of the USSR №755 issued 12.08.1977.

The contents of the anti-inflammatory cytokine IL-1  $\beta$  and TNF  $\alpha$  was determined in blood serum with the help of immunofermental method using reagents manufactured by "RD Systems", USA. Experimental group was affected by cold. Control group consisted of intact animals. Statistical analysis was done on the basis of Statagraphcs plus 5.1 for Windows.

Results: the study demonstrated that the production of cytokine was dramatically decreased in the early reactive period (in one hour and 24 hours after damage) and sharply increased at the beginning of the late reactive period (at  $p \leq 0{,}001$ ). The imbalance of anti-inflammatory cytokine was observed at all experimental stages the secretion of TNF  $\alpha$  prevailed. We suggested that in intact animals revealed cytokine performed a certain "sentry" function since it was this cytokine that was the mediator of « the first wave » responsible for triggering defensive immune mechanisms.

Conclusions: the secretion of cytokine IL-1  $\beta$  and TNF  $\alpha$  in a healthy organism reflects the current condition of immune system. Imbalance of cytokine at frostbite specifies indicates their role in pathogenesis of acute cryotrauma and may be of a certain value in diagnostics of the severity of injury in the monitoring cryotrauma and in developing new methods of treatment, which may prove to be more effective, than traditional ones.

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## INVESTIGATION OF MEDICINAL TEAS APPLIED IN HYPOFERRIC ANEMIA PHYTOTHERAPY

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Drug therapy of hypoferris anemia is based on the introduction of iron from iron containing medicinal agents into the body. The substitution therapy of iron deficiency by means of its salt preparations is effective enough, however, a serious adverse events development risk, even while using modern synthetic medicinal agents, remains rather high. At the same time, phytotherapy as one of the treatment modes is deprived of disadvantages natural for drug treatment with using xenobiotic medications of synthetic origin. Phytotherapy is recommended as a means of complementary therapy and especially effective for iron deficiency prevention at hidden iron deficiency.