



**YOUNG  
DOCTORS  
OF AZERBAIJAN**



# Medical Review

— vol. 4 —

10-11 may 2017  
Baku, Azerbaijan  
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*10-11 2017 .*

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## **CONFERENCE ABSTRACTBOOK**

Public Organization  
“Young Doctors of Azerbaijan”

with official partnership of the  
West-Kazakhstan Marat Ospanov State Medical University,  
JSC “Medical University Astana”,  
Kharkiv National Medical University,  
& Nizhny Novgorod State Medical Academy

**VI Annual International Scientific-Practical Conference  
«MEDICINE PRESSING QUESTIONS»**

May 10-11, 2017  
Baku, Azerbaijan

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**6th Annual International Scientific - Practical Conference  
“MEDICINE PRESSING QUESTIONS”**

**President of the Conference: Aliyev Amir**

**Head of the Scientific Committee:  
Chobanov Rafiq (Azerbaijan Medical University, Baku, Azerbaijan)**

**Members of the Scientific Committee:**

- 1. Zhurabekova Gulmira (West Kazakhstan State Medical University, Aktobe, Kazakhstan)**
- 2. Obukhova Larisa (Nizhny Novgorod State Medical Academy, Nizhny Novgorod, Russia)**
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- 10. Turgambayeva Asiya (JSC “Medical University Astana”, Astana, Kazakhstan)**

**Scientific Secretary: Garayev Nasimi**

**Medical Review. Amir V. Aliyev and Gulmira A. Zhurabekova. Baku, **Khazar University Press**, 2017, volume 4, 177p.**

**To the present issue of “Medical Review” included abstracts of reports of 6<sup>th</sup> Annual International Scientific - Practical Conference “Medicine Pressing Questions”, May 10-11, 2017, Baku, Azerbaijan**

## – CONFERENCE PROGRAMME

- 10.05.2017 - First day

Opening & registration	08:30-09:00
( )	09:00-09:15
( )	09:15-09:30
THE FUNCTIONAL STATE OF THE VASCULAR WALL AND INFLUENCE OF VISFATIN AND ENDOTHELIAL NITRIC OXIDE SYNTHASE IN HYPERTENSIVE PATIENTS WITH ABDOMINAL OBESITY Andriieva A. – Ukraine	09:30-09:45
CRF02_AG -1	09:45-10:00
	10:00-10:15
	10:15-10:30
	10:30-11:00
	11:00-11:15
	11:15-11:30
	11:30-11:45
(12-14 ),	11:45-12:00
	12:15-12:30

	12:30-12:45
..-	12:45-13:00
..-	13:00-14:00
	14:15-14:30
..-	14:30-14:45
-	14:45-15:00
..-	15:15-15:30
-	15:30-15:45
..-	15:45-16:00
TRANSITION AND CONDITION OF THERAPEUTIC SERVICE IN KAZAKHSTAN Zhamantayev O.K. – Kazakhstan	16:00-16:15
IMMUNE PREMATURE OVARIAN INSUFFICIENCY: MECHANISMS AND NEW APPROACHES OF CORRECTION Sribna V.A. – Ukraine	16:15-16:30
..-	16:30-16:45
( , )	16:45-17:00
..-	19:30
- ( )	

- 11.05.2017 - Second day  
 “ ” – Section “A”

-1	08:30-08:45
	08:45-09:00
	09:00-09:15
COMPARATIVE ANALYSIS OF DIAGNOSTIC TOOLS FOR CERVICAL CANCER SCREENING IN WESTERN KAZAKHSTAN Balmagambetova S.K. – Kazakhstan	09:15-09:30
	09:30-09:45
	09:45-10:00
	10:00-10:15
	10:15-10:30
	10:30-11:00
	11:00-11:15
	11:15-11:30
( : . . . , . . )	11:30-11:45
	11:45-12:00
INFLUENCE OF OBESITY ON THE QUALITY OF LIFE AND INDIRECT COSTS BY PATIENTS QUESTIONNAIRE RESULTS Khassenova . – Kazakhstan	12:15-12:30
( : . . . , . . )	



	12:30-12:45
	12:45-13:00
	13:00-14:00
	14:15-14:30
	14:30-14:45
	14:45-15:00
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(	15:45-16:15
	16:15-16:30
	16:30-16:45
CONNECTION BETWEEN THE MOVEMENT OF COMMONLY USED TRANSPORT AND POPULATION MORBIDITY Issina S. – Kazakhstan ( <i>Scientific director: assc. prof. Turgambayeva A.K.</i> )	16:45-17:00

- 11.05.2017 - Second day  
 “ ” – Section “B”

	08:30-08:45
NEUROBIOLOGICAL MECHANISM OF ADAPTATION TO HYPOXIA Erlykina E.I. – Russia	08:45-09:00
	09:00-09:15
	09:15-09:30
FOLLEY	09:30-09:45
II	09:45-10:00
	10:00-10:15
ON THE ISSUE OF SELECTION OF OPERATION METHODS IN THE COURSE OF HIRSCHSPRUNG'S DECEASE AMONG ADULTS irzahmedov . . - Uzbekistan	10:15-10:30
	10:30-11:00
	11:00-11:15
	11:15-11:30
	11:30-11:45
	12:00-12:15
INTERRELATION OF MORPHOLOGICAL CHANGES IN THE ENDOCRINE GLANDS UNDER ECOLOGICAL DISBALANCE Tyulekbaeva G.K. – Kazakhstan	12:15-12:30

CRF02_AG -1 -	12:30-12:45
..-	12:45-13:00
..-	13:00-14:00
..-	14:15-14:30
..-	14:30-14:45
D (VDR) .-	14:45-15:00
CARDIOVASCULAR SYSTEM DISORDERS DEPENDING ON THE DEGREE OF ACTIVITY IN PATIENTS WITH THE SYSTEMIC LUPUS ERYTHEMATOSUS ni a L. - Latvia	15:00-15:15
<i>P2RY12</i> ..- - ..-	15:15-15:30
..-	15:30-15:45
RE, RP, HER2/NEU	15:45-16:00
..- . ..-	16:00-16:15



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 . 3 : (50 .)  
 (91 .), (109 .).  
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 : (AGT) rs4762 rs699,  
 II 1 (AGTR1) rs5186 II 2  
 (AGTR2) rs1403543. rs4762, rs699,  
 rs5186, rs1403543 -  
 T rs4762  
 2,69 ( =0.005) 3.1 ( =0.02); G (OR=0.37; P=0.005)  
 GG (OR=0.29; P=0.02)  
 .  
 AGT ( $r^2=0.937$ ;  $D'=0.89$ ;  $P=0.0000$ ).  
 C (64% vs 3.5% ,  $\chi^2=6.66$ ,  $P=0.009$ , OR=1.57,  
 CI:1.04-2.36) TC(  $\chi^2=5.8$ ,  $P=0.015$ , OR=0,29; CI:0,22-0,42).  
 T  
 AGT , ( T/ TT) ( G/ GG)  
 .  
 CC (  $P=0.009$ , OR=1.57) ( $r^2=0.937$ ;  $D'=0.89$ ;  $P=0.0000$ ),  
 TC (  $P=0.015$ , OR=0,29)  
 AGTR1 AGTR2

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(MRSA)

MRSA

MRSA

2016

*S. aureus*

(HiMedia, ).

EUCAST (European Committee on Antimicrobial Susceptibility Testing).

275 *Staphylococcus aureus*.

2016 MRSA, 29,1% ( ), ( ), ( ), ( ), ( ), (n=6),

9 (n=4) AM T (n=2).

55 MRSA, 10 (18,2%) 12 (21,8%)

β-

94,5% MRSA. 24 (43,6%) MRSA

96,3%

92,7% MR-

: , MRSA ,  
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20,0% , MRSA ,

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(2013-2015 ) 7058

1723 (24,4%) - .71,7%  
(n=1236)

22% ( :

- 16,2% (n=44), - 3,4% (n=9),  
- 2,3% (n=6); :

- 18,6% (n=50), - 2,3% (n=6),

- 1,2% (n=3); - 1,2% (n=3);

- 1,2% (n=3); - 2,3% (n=6);

- 2,3% (n=6);  
- 4,7% (n=13) .).

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2008-2009 .

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 3 3 4 ( ) 12  
 SF-36  
 1787  
 , 29,3±1,1% ,  
 51,3±1,2% ( <0,001),  
 19,4±0,9% ( <0,001). ( ) ,  
 12 ,  
 1,66±0,25 ,  
 5,12±0,31 ( <0,001). ( -  
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 4-7 45,9±2,1%, . . .  
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 . 2010 . 2016 . 71 .  
 48 ., 13,0 .  
 19,5 .  
 83,3 .,

43,6 30,7 .  
 42 ,, 15,4 . 13 .  
 24 . 79,9 ,,  
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 : 37 .  
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 Bishop.  
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 3 : I -  
 (36). II -  
 (65). III ( )  
 (30).  
 : I : «  
 » (27,8 %), « » (8,3%), (22,2 %); «  
 (30,6%), (8,3 %), » (2,8%); II : - (39,4%), «  
 » (31,8%), (7,6 %); « » (6,1%);  
 (1,5%); (6,1%); (7,6 %).  
 16 43 .

I , I 97,2%  
, II 93,9%.  
2,8 % I , II 6,1%.  
II :  
I 6,1%, 8,3% , 1,5% . I  
- I 2,8 % . 100%  
, 1- 5- (II )  
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40 (0-7 ), /

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215  
2011-2014 .

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(43%), 31,5 %, (13,2%), (5,5%), (66,5%),  
(20,5%), (27,7%), (3,2%).  
: (19,5%).  
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2015-2016 . 150 ,

STATSOFTStatistica 10.0 (USA, 2011).

38,4±4,7 .  
(64%).  
6,1±1,9. (91%), 1-2 (39%),  
(8,7%), (31%), (21.7%),  
(4,7%).  
(32,1%), (17,8%).  
(11,3%), (41,3%),  
(11,0%). 11  
6,3±2,1.  
3800±540 . 27 .  
300±200 . 3 ,

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2. « » 09  
2016 .  
3. Ludmir J., Sehdev H.M. // ClinObstetGynec. – 2000. – 43;3. – P. 433-439

1 « ... » , ,  
 2UMC « ... » , ,  
 - 6,4%.  
 30% 15-40%  
 7,2% - 13,5%. 1,5%-8,7%

case-control: I - 28  
 15 Arabin, II - 30 17 25  
 20 38 . 58 49 (84,4%) : 2  
 . 24 (85,8%) 1- 4(14,2%) -  
 24 (80%), 6 (20%) - 33 36 2- 3- 36  
 85,8%.

**KE KED**

- 1. . . 1, . . 1, . . 1,2
- 2. - , . -

KED KE. KED  
 KE  
 KED KE  
 (Ki67, CD98hc) (3 ) Wistar  
 CO2- 37 C , 87.5% DMEM, 10%  
 , 1.5% HEPES- , 1%  
 - 3- (« » ) 14- (« » ) ,  
 20 / . « » « »  
 3 : 1- , 2— KED, 3— KE.  
 Ki67 (1:50) CD98hc (1:125)  
 (“Novocastra”).  
 Ki67 « » 3.48 ,  
 « » . KED KE Ki67 « » 1.89  
 1.40 « » KED KE  
 Ki67 5.62 3.87  
 ( ) CD98hc « »  
 2.92 , « » . KED KE  
 CD98hc « » - 1.49 1.22 , « » -  
 3.90 1.62  
 Ki67  
 CD98hc  
 Ki67 CD98hc KED KE  
 KED KE

-1

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-1

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27%

83

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2 .

2- 28% 3- (45%)

12

(G), (I,

/ ), -1 ( / )

3,5); Caro = G/I; QUICKI = 1/[logI<sub>0</sub>+log(G<sub>0</sub>/18)]. HOM -IR = I G/22,5; - cell = 20 I/(G-

(p<0,01) (p<0,001), HOM -IR (p<0,001), Caro - cell (p<0,001) QUICKI (p<0,001). 4,88 9,71 / ,

-1

(r=-0,107, p<0,05), (r=-0,381, p<0,05).

-1 Caro (r=-0,107, p<0,1).

-1 - cell

(<sup>2</sup>=7,85, p<0,05). 3

(r=0,181, p<0,05) QUICKI (r=-0,181, p<0,05), (r=0,180, p<0,05), HOM -IR

QUICKI, -1 , HOM -IR

-1 - cell

-1 2

-1.

100

2014 2017 . . , 40 .

	1,5 - 2		
	20 (80%)	40	
40	(100%),	15	(37,5%)
	12 (60%)	20-	
	:	5 (25%)	20
(75%)	20		15
			45%

### **IMMUNE PREMATURE OVARIAN INSUFFICIENCY: MECHANISMS AND NEW APPROACHES OF CORRECTION**

Sribna V.A., Blashkiv T.V., Yanchiy R.I.

*Bogomolets Institute of Physiology NAS of Ukraine, Kyiv, Ukraine*

Premature ovarian insufficiency (POI) - a disorder of ovarian function, which occurs in women under the age of 40 years – today is actively studied.

This disease is quite common especially in developed countries because of the delay of maternal age and at present day it is a medical and social problem.

There is strong association between POI and autoimmune dysfunction and currently the leading role in the development of this pathology linked to the autoimmune diseases. But still it remains unclear whether the formation of autoimmunity is a primary cause of the disease, or it arises as a consequence of the impact of long-term chronic diseases, thereby closing the "vicious" circle of pathogenesis. In addition, the presence of contraindications to hormone replacement therapy determines the search for alternative methods of treatment and further research that will bring doctors to puzzle out numerous mysteries, which entail such multifactorial diseases as POI.

The aim of the work, the results of which we report here, was to study the features of ovarian dysfunction and functional state of the immune organs (thymus and lymph nodes) under immune-complex mediated inflammation in order to understand better the mechanisms of POI development and testing new approaches for its correction.

Under the conditions of experimental immune-complex mediated failure we observed the distress of ovarian function, namely, the oocyte meiotic maturation depressed and cell death of follicular cells surrounding oocytes (FCSO) increased and damage of immune organs, specifically, increased DNA damage of immune competent cells in the thymus and lymph nodes and decreased their viability. Administration of antioxidant ("Mexidol") at a dose of 100 mg/kg improves all parameters. This indicates that reactive oxygen species are involved in the pathological process.

According to the literature data, systemic inflammation accompanied iron deficiency states as well as the disturbances in metal-ligand homeostasis of redox-active metals, including iron, therefore our next step was to estimate a newest experimental substance of nanoparticulate zero valent iron (nZVI) as a possible drug correction of POI. So, we established that under the conditions of experimental immune-complex mediated failure intravenous injections of nZVI in



a dose of 1.68 mg/kg have improved the oocyte meiotic maturation in vitro at the stage of Metaphase I and decreased cell death of the FCSO, also the viability parameters of thymic and lymph nodes cells increased and damage of their DNA decreased.

The obtained results give us the reason to assert, that oxidative stress and, possibly, a shift of iron metal-ligand homeostasis are involved in the mechanism of ovarian dysfunction under the conditions of experimental immune-complex mediated failure. Applying antioxidants, namely "Mexidol", and iron supplements (nZVI) should be considered as a new approach in autoimmune POI treatment and could be recommended as a drug correction of disorders of ovarian function and immune-complex mediated failure. The mechanisms of the inhibitory effect of immune-complex mediated failure and subtle mechanisms of the interaction nZVI with somatic and germ cells require detailed clarification.

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 1991 2009  
 (I , n=22),  
 (II , n=48).  
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 (-1,83 [-2,66; -1,25] -1,47 [-2,51; -0,86], =0,055).  
 (-1,13 [-1,46; -0,627] II , -0,98 [-1,63; -0,57] – I, >0,05).  
 (-2,73 [-3,40; -2,09] -1,67 [-2,92; -0,42], >0,05)  
 (52,9±5,9, 60,8±7,4 ),  
 -score  
 (-1,75 [-1,83; -1,43] -0,81 [-0,96; -0,66]

=0,021).

« »

2015-2016

01.01.2017 340.000

27 7,9 100.000

46,6 ±14,01 ; 27 10 - 26 67 ,

17: 24-66 , . 36,1 ±12,28 -

( >0,05).

82 % (14 ) - ,6% (1

) - ,6 % (1 ) - ,6% (1

100%

3,5 ;

-3 2,6

-2,5 ;

3,7 ;

-2,7 -2,7

6- -3,4 ,

(22%) -2,7

25 (92%)

« », « » - 44%, « » - 20%, 28%

78%

- 22%;

-48%, - 8%. 22%

( )

: 1. 100.000 , <0.05 7,9 (1,7:1).  
 2. 15% ,  
 3. 26% (7 ) 92% .  
 4. .

30% ( ) « » ,

SF-36, GPAQ SHSQ  
 1829 <30  
 / - 962 (1- ), 30-60 / - 529 (2- ),  
 60 / - 343 (3- ).  
 30-60  
 14 ,  
 41,3±1,2 45,3±1,2%  
 (t=2,35; P<0,05). (t=6,74; P<0,001)  
 - 26,9±1,0 29,3±1,1% (t=1,62; P<0,05).  
 1-  
 74,2±1,4%, 2- 62,4±2,1%  
 (t=4,68; P<0,001), 3- - 40,2±2,6% (t=6,65; P<0,001).  
 1- 6,28±0,33 , 2- -  
 44,7±0,41 (t=3,42; P<0,001), 3- - 2,36±0,44 (t=3,52; P<0,001).  
 980 (53,6±1,2%), 619  
 (63,2±1,5%). 361  
 (36,8±1,5%; t=12,45; P<0,001) 849  
 1829 (46,4±1,2%; t=4,24; P<0,001).  
 968

688	980	(70,2±1,5%),
280	849	(33,0±1,6%; t=16,99;
P<0,001).		

## **INTERRELATION OF MORPHOLOGICAL CHANGES IN THE ENDOCRINE GLANDS UNDER ECOLOGICAL DISBALANCE**

Zhurabekova G.A., Tyulekbaeva G.K., Kalzhanova V.B., Shayakhmetov Sh.K.  
*West Kazakhstan Marat Ospanov State Medical University, Aktobe, Kazakhstan*

**Relevance.** The endocrine system is an important link in the coordination of functions, ensuring preservation of homeostasis and adaptive-compensatory capabilities of the body. The thyroid gland and adrenal glands participate in the formation of adaptive reactions of the body to the action of extreme environmental factors of varying strength and duration, sensitively reacting with morphological and functional changes [1]. Among the great variety of environmental factors affecting the human body, the leading place is occupied by heavy metals, coming mainly into the environment as a result of human activities. The compounds of heavy metals that are highly toxic to living organisms can persist for a long time in environmental objects, accumulate in the body of humans and animals, causing changes in organs and tissues [2]. Among heavy metals, chromium is a widespread contaminant that significantly increases environmental stress for destabilizing factors and provokes an epidemiological problem for a number of diseases [3].  
**Aim:** Studies of interrelation of the morphological changes in the endocrine glands during eco-balance.

**Materials and methods of research:** The subject of the study was mongrel white mice in the amount of 40 (females and males) weighing 20-30 grams, which were divided into 2 groups (experimental 20 and control 20) by randomization method distributed in cages in order to study the effect of toxicants in the geniture. Animals were kept in vivarium conditions on a full-fledged diet, with free access to water and food. For creating a model of chronic intoxication, potassium dichromate (0.15 mg) was taken at a rate of 0.0045 mg / g, which was administered peros. According to the design of the study, the mice were withdrawn from the experiment on the 3rd month.

**Results and discussion:** When chromium influenced on the thyroid gland, the thickness of the capsule was 1.3 times lower in the experimental group than in the control group, while the diameter of the follicles increased 1.4 times, respectively. An increase in 1,2 times of the height of thyrocytes in the experimental group is noted, in which the density of the location of cells in the field of view has increased by 1.1 times in comparison with the control.

The study of the adrenal glands in the experimental group showed that the thickness of the capsule also increased by 1.9 times in comparison with the control one. There was a decrease in the volume of the glomerular zone 1.6 times, reticulated by 1.2 times compared with the control group, under which the state of the volume of the beam zone remained unchanged. Against the background of changes in the cortical layer, the medulla increases by 1.3 times in comparison with the control group.

**Conclusion:** The obtained results demonstrate the close and inextricable interrelation of endocrine organs in conditions of chronic intoxication. The reaction of the glandular tissue is manifested by the proliferation of connective tissue in both organs, the increase in blood flow in the form of an increase in the volume of the adrenal medulla; all of this together may indicate the initiation of adaptive mechanisms in response to chronic intoxication.

**Reference:**



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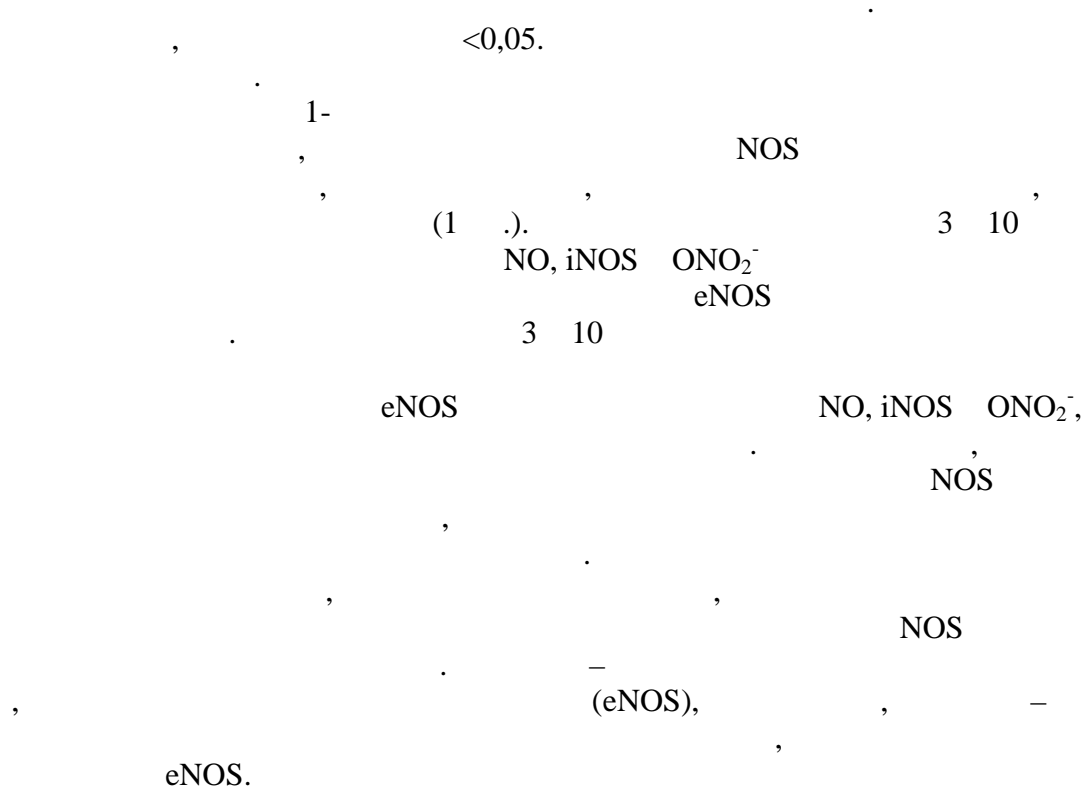
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. Omura, R.Sato (1964),  
 ( - . - .) C.H.Williams, H. Kamin (1961), ( )  
 ( ( ) )- C.H.Yang, L.P.Kicha (1978), ( )  
 .(1975), N- (N- ) A. Bast, J. Nordhosck (1981),  
 6- ( -6- ) N.S. Gnosh, N.C. Kar (1983).

NO<sub>3</sub><sup>-</sup> - . . .(2000),  
 . . . (2000), NOS (iNOS)  
 (ONO<sub>2</sub><sup>-</sup>) . . . (2011).  
 NO - NO<sub>2</sub><sup>-</sup>  
 NOS (eNOS)  
 1 ( / ),  
 . . Lowry . (1951).



### THE FUNCTIONAL STATE OF THE VASCULAR WALL AND INFLUENCE OF VISFATIN AND ENDOTHELIAL NITRIC OXIDE SYNTHASE IN HYPERTENSIVE PATIENTS WITH ABDOMINAL OBESITY

Andriieva A., Babak O. Ya., Pluzhnykova O., Kotlik J.  
*Kharkiv National Medical University, Kharkiv, Ukraine*

**Purpose:** to improve the quality of influence and diagnosis of patients with hypertension (HT) with or without abdominal obesity (AO), based on the study of influence of visfatin and endothelial nitric oxide synthase (eNOS) on the functional state of the vascular wall.

**Materials and Methods:** The study enrolled the 106 patients. 3 groups were formed: 1st – HT patients (n = 27), 2nd - patients with HT and AO (n = 52), 3rd - healthy people (n = 27). The patients were divided by sex and age. The average age was (60±4,7) years. Visfatin («RayBiotech», USA), eNOs («Uscscn Life Inc. Wuhan», China) levels in serum - ELISA and endothelium-dependent vasodilation of the brachial artery (EDVD BA). «StatSoftInc10».

**Results:** There were found correlations between changes eNos and visfatin in serum (r = 0,38, p <0,05), as well as indicators EDVD in patients with HT and AO: initial diameter of the brachial artery (BA) (r = 0,69, p <0,05), the diameter of BA after decompression by 1 min. (r = 0,66, p <0,05), the diameter of BA in max vasodilation (r = 0,75, p <0,05).

**Conclusions:** The visfatin stimulates the release of eNos, and this can be seen as a compensatory mechanism aimed at overcoming structural responses.

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 AED EDL, AED EDL  
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 (3 ) Wistar  
 CO<sub>2</sub>- 37 C , DMEM, 15% , 1.5%  
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 EDL, 4 - 4 : 1 - , 2 - AED, 3 -  
 AED EDL  
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 AED,  
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## **CONNECTION BETWEEN THE MOVEMENT OF COMMONLY USED TRANSPORT AND POPULATION MORBIDITY**

<sup>1</sup>Issina S., <sup>1</sup>Turgambayeva . . ., <sup>2</sup>Alibayeva R.M., <sup>2</sup>Bigozhina B.Zh.

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2. House of health, Astana, Kazakhstan

**Introduction.** According to the World Health Organization experts (WHO), health not only the absence of disease or infirmity, it is also the state of complete physical, mental and social well-being (2005). Also health is one of the most important components of human happiness, and one of the major conditions for the successful social and economic development.

**Aim.** Determine the connection between the movement of commonly used transport and population morbidity.

The object of the research were 51 volunteers of both sexes in age 25-63. The research deals with the occupation of volunteers, their education level, the place of the domicile, the incidence rate of ARVI, the presence of chronic illness, doctor's appointment with the purpose of prevention, frequently used foods, the level of a healthy lifestyle.

**Results and discussion.** 51 respondents were interviewed during the sociological research. Where: Male - 22 Female – 29. The initial group of respondents were in the age of 18-30 (72.5%), 31-45 years old (11.8%), 46-60 years old (11.8%), and over 60 years old (3, 9%). The level of education of the respondents were 45 % for secondary-level education/ 45% for higher and incomplete higher education - 8%. Marital status: Married - 18 (35%), single - 33 (65%). The level of material security by points is: 6 scores - 19 (37%), more than 6 scores - 32 (63%). Many of the respondents lived in Astana: up to 5 years - 26 (51%), more than 5 years - 12 (24%), and only a few in other cities - 13 (25%). Financial security, which was: less than \$ 81 - 7 (13.7%), 82-139 dollars - 2 (4%), 140-192 dollars - 6 (11.7%), 193-247 dollars 10 (19, 6%), more than 247 dollars. - 26 (51%). The incidence of ARVI: 1-2 times per year - 30 (59%), 3-4 times per year - 6 (11%), 1-2 times a complication - 3 (5%), do not ill - 13 (25%). The presence of chronic diseases: cardiovascular - 6 (12%), respiratory - 5 (10%), gastrointestinal - 3 (6%), kidney and liver disease - 3 (6%), tother - 4 (8%), do not have- 30 (58%). According to the information above, 55% of volunteers regularly used railway vehicles, 37% move by automobiles and 18% by plane.

**Conclusion.** Thus, every second respondent making use of to move long-distance rail transport often ill SARS (more than half (57 %) of the respondents), which does not exclude the possibility of the spread and development of disease.

## **STUDY THE INFLUENCE OF SOCIAL FACTORS ON QUALITY OF LIFE OF RETIREE IN KAZAKHSTAN**

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<sup>1</sup>Nazarbayev University Medical Center, Astana, Kazakhstan

<sup>2</sup>Astana Medial University, Astana, Kazakhstan

**Introduction.** The forces of demographic upheaval are buffeting humankind. The most prominent change is rapid population ageing across the world, particularly in low- and middle-income countries. According to the United Nations, Department of Economic and Social Affairs information, globally, the share of older people (aged 60 years or over) increased dramatically (11.1 percent in 1980, 12.3 percent in 2015) and will continue to grow as a proportion of the world population, reaching 19.8 percent by 2050 [Population Division]. There is great concern over rapid population aging, which has been crudely linked to workforce shortages; however, many older persons are working nowadays, especially in developing countries.

**Objective.** To evaluate the influence of presence of work on the retirees quality of life (QoL).

*Materials and methods.* Questionnaire 203 respondents realized data acquisition. Tool for assessing the QoL was a questionnaire SF-36 “Health Status Survey”. Variation statistics methodshave been used in statistical processing of data.

*Results.* The average age of the respondents was  $67.5 \pm 5.4$  years. The respondents were predominantly female (116/87); the male population of the retirees had better scores of all eight scales compared to the female ones. Considerable difference between indicators amongst gender was noted in role-physical functioning (RP) role-emotional (RE) scales ( $80,1 \pm 12,6 / 62,7 \pm 12,6$  and  $80,4 \pm 13,0 / 68,1 \pm 13,9$ ). Amount of working retirees was 91, of nonworking – 112. Indicators of QoL of working retirees were assessed higher than indicators of nonworking retirees. Furthermore, these results were assessed in both genders. The highest rates amongst working men were in role-emotional scale ( $80,4 \pm 13,0$ ) and amongst working women was in physical functioning ( $75,3 \pm 13,9$ ). According to the results of the analysis, the calculated value of chi-square Pearson was higher than a critical criterion:  $6,402 \ 3,84$  ( $p < 0,05$ ), the constraint force is a fractional closely-coupled interface (0.417).

*Conclusion.* Adding older adults to the workforce is useful only if they are healthy enough and have good QoL to be productive. A heightened focus on disease prevention could play an important role in adapting to population aging. That involves a commitment to healthier diets, more physical activity, reduction of tobacco and harmful alcohol consumption. From results of our research, having a job improves the level of QoL.

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52,4±7,6 ) 25( )D 2 : 1

(n=51) – D (25( )D 30 / ) 2

(n=177) – D- (25( )D<30 / ). 25(OH)D ( )

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: 2 - 0,88[0,61;1,80] / / (p<0,05), 1 -

0,56[0,38;1,09] / / . 25( )D (R=-0,15; p=0,045)

(R=0,41;

p=0,00008); (R=0,43; p=0,00003);

(R=0,26; p=0,02). D- ( )

>95 / <sup>2</sup>, >115 / <sup>2</sup>) ( 0,89[0,72;1,68]

/ / (n=26) - 0,65[0,46;0,96] / / .

1 69%

, 15%

, 7% , 9%

$p < 0,007$   
 $(\beta = 0,01; \sigma = 0,009)$ .

25( )D

(R<sup>2</sup>=0,19; F(4,66)=3,8;

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(55,6%)

62,8%

87,6%

90-

47,7%

46,8%

"Varicocele is associated with erectile dysfunction: a population-based case-control study." Keller JJ, Chen YK, Lin HC.

"Low plasma testosterone in varicocele patients with impotence and male infertility". Younes AK.

67

38,4+4,6

- 85,3%

- 94%

**CARDIOVASCULAR SYSTEM DISORDERS DEPENDING ON THE DEGREE OF ACTIVITY IN PATIENTS WITH THE SYSTEMIC LUPUS ERYTHEMATOSUS.**

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1. General Practitioner Residency, Faculty of Medicine of the University of Latvia, Riga, Latvia  
2. Paul Stradins Clinical University Hospital, Center of Rheumatology, Riga, Latvia

Thesis basis: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease of connective tissue, that can affect almost any organ system, caused by the autoimmune process. There were 52 outpatients included in research. In the control group female prevalence was higher than male,

therefore it means that women are more prone to SLE, and higher risk of atherosclerosis. In the research was used SLEDAI ( *Systemic lupus erythematosus disease activity index* ) score, which is divided by stages: 1. stage - low activity SLEDAI 1-5; 2. Stage – medium activity SLEDAI 6-10; 3. Stage – high activity SLEDAI 11-19; SLEDAI distinguishes five grades. Zero stage – no activity SLEDAI zero points; Very high activity SLEDAI correspond with 20 and higher points. So it shows that patients with very high activity SLEDAI was not found in research group. SLE activity assessment in numbers is important, to select the most accurate treatment method for patients, because the treatment goal is to improve the quality of life for patient, pain relief and the main goal is to get remission. There are variety of disease activity assessment methods in Rheumatology. In retrospective research, we were assessing lipid profile, immunology analyses, diagnostic criteria for the types and frequency of distribution, electrocardiogram findings and compared them with SLEDAI stages.

The aim of thesis: To determine the cardiovascular system damage and risk factors in patients with systemic lupus erythematosus.

Thesis tasks:

1. Retrospective analysis of the patients with the systemic lupus erythematosus medical history.
2. Determine and assess ECG(*electrocardiography*) figures in patients with SLE
3. Determine the lipid profile indicators
4. Determine the immunological indicators
5. Make analyses of the obtained results and relationships between them

Thesis methods: Research data collection took place in the hospital of the Clinical University of Paul Stradina in the functional and diagnostic section. Was made retrospective analyses of patient in hospital archives. In the archives was analyzed immunology , biochemistry , laboratory material base of the patients. In the research are involved ambulatory patients of the Rheumatology center. In every patient was analyzed SLEDAI score, ECG findings; SLE diagnostic criteria.; ANA(*antinuclear antibodies*), anti-ds DNA( *anti-double stranded DNA*), C3(*complement component 3*), C4, antibodies against cardiolipin , phospholipids, antibodies against IgG(*Immunoglobulin G*) class, antibodies against phospholipids IgM; lipid profile.

Thesis results: Retrospective research included 52 ambulatory patients, from them 2 men (3,85%) and 50 women (96,15%) in age period between 22 and 85 years, mean age was 47, 28 (48 years old). More than half of patients with SLE develop ECG changes. The most common change was rhythm disturbances, conduction disturbances and ST-segment elevation. A statistically reliable correlation was established in the course of the paper between the following:

1. C3 and C4 (  $r = 0,986$  ;  $p < 0,05$  ).
2. Antiphospholipid antibodies and anticardiolipin antibodies (  $r = 0,575$  ;  $p < 0,05$  ).
3. TG(*triglyceride*) and phospholipid IgG class (  $r = 0,321$  ;  $p < 0,05$  ).
4. Cholesterol levels and LDL(*low-density lipoprotein*) (  $r = 0,533$  ;  $p < 0,05$  ).
5. Cholesterol levels and HDL(*high-density lipoprotein*) (  $r = -0,278$  ;  $p < 0,05$  ).

Among these parameters correlation was observed , because they belong to the same immunological groups (C3, C4) and lipid groups (antiphospholipid antibodies and anti-cardiolipin antibodies). Malar rash un SLEDAI (  $p < 0,05$  ); Discoid lupus un SLEDAI (  $p < 0,05$  ); Oral ulcers un SLEDAI (  $p < 0,05$  ); Non erosive arthritis un SLEDAI (  $p < 0,05$  ); Renal disease un SLEDAI (  $p < 0,05$  ); Correlation in regression model was established between the following: Rhythm disturbances un SLEDAI (  $p < 0,05$  ).

## CLOSTRIDIUM DIFFICILE INFECTION ANALYSIS IN LATVIAN CENTRE OF INFECTIOUS DISEASES

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1. General Practitioner Residency, Faculty of Medicine of the University of Latvia, Riga, Latvia

2. Riga East University Hospital, Latvian Center of Infectious diseases, Riga, Latvia

Thesis basis: *Clostridium difficile* infection (CDI) are on a dramatic rise as of late. Among the main aspects of fighting this problem is the assessment of both quantitative and qualitative risk factors.

The aim of thesis: Understand which medical conditions (and its antibiotics treatment) subsequently resulted in CDI. As well to understand what is the main factors of developing severe CDI form.

Thesis methods: Retrospective research was based on 60 inpatients of the Latvian Infectology Centre in 2014-2015. We included patients with positive CDI using polymerase chain reaction or positive on exotoxins using immunological test and also observed patients, with watery stool was more than three times a day. Using personal anamnesis of following diagnosis, patients were divided into two groups. One group with a severe CDI symptoms, other group with a mild CDI symptoms. From the laboratory parameters were analyzed and compared: C-reactive protein and white blood cell count.

Thesis results: Research included 55% (n=35) women and 45% (n=25) men. The higher incidence of CDI was seen in patients older than 71 years. All patients used antibiotics before the hospitalization. The most common reason for using antibiotics where pulmonary disease (33,5%) and surgical (31,6%) condition. From all investigated patients 17% had severe form of *Clostridium difficile* infection. Calculations have revealed that C protein and leukocytes counts are the best inflammatory diagnostic markers while C-reactive protein is more statistically reliable (p=0) for severe *Clostridium difficile* infection detection than leukocytes count (p=0,027). Patients with severe *Clostridium Difficile* form had much higher C-reactive protein level in blood comparing to patients with mild *Clostridium difficile* infection form.

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1,08 ( $<0,05$ ), 1- 2- 2- 2- 1,2 ( $<0,05$ ).  
 1,12 ( $<0,05$ ), 1- 1,28 ( $<0,05$ ), 1- 1,07 , 1,19 ( $<0,05$ ).

1,07 , 1,19 ( $<0,05$ ).  
 1,08 ( $<0,05$ ), 1- 2- 2- 2- 1,2 ( $<0,05$ ).  
 1,12 ( $<0,05$ ), 1- 1,28 ( $<0,05$ ), 1- 1,07 , 1,19 ( $<0,05$ ).

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1 15 , 41 (71,93%), 16 (28,07%).  
 6 10 - 13(22,81%) 10 15 - 10(17,55%) 6 - 34(59,65%) ,

21(36,85%), ( )- 36(63,16%)  
 : 50(87,72%)  
 — 9(15,79%); — 12(21,06%)  
 ( , , 5(8,78%)  
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53(92,99%) ; — 52(91,23%) ; —  
 40(70,18%); — 42(73,69%) ; —  
 — 20(35,09%) .  
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 (5,0±1,76\*) ( <0,05)  
 (61,4±1,82) ( <0,05). (64,9±1,40)( <0,01), 1 6

(22,6±1,35) (0,74±0,15) 4,%  
 (37,7±1,47)(1,47±0,06) ( <0,001). 6 15 ,  
 4,%  
 (23,4±2,51) ( <0,001) (27,3±3,09)( <0,01).

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 ( <0,01), IgM / 1 6  
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 IgM / (1,3±0,15) ( <0,05). (1,6±0,19)

68,4%, 40%,  
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	198	100	92	100	67	100	166	100	523	100
	79	39,8	68	68,4	64	95,5	66	39,7	277	53

## COMPARATIVE ANALYSIS OF DIAGNOSTIC TOOLS FOR CERVICAL CANCER SCREENING IN WESTERN KAZAKHSTAN

Bekmukhambetov Ye.Zh., Balmagambetova S.K., Koyshybaev A.K., Urazayev O.N., Karimsakova B.K., Ryzhkova S.N., Yerimbetova G.G., Sakhanova S.K., Zavalennaya O.V., Urazayeva Zh.Zh.

*West Kazakhstan Marat Ospanov State Medical University, Aktobe, Kazakhstan*

According to the data of Kazakhstani scientists, the incidence of cervical cancer in our country which had been 14.5 per 100,000 female population in 2004, further increased up to 20.2 by 2014 and even up to 32.8 by 2015 on estimation of the ICO HPV Expert group. The sharp rise in the morbidity might be referred to enhanced detection of malignant pathology of the cervix due to the introduction of the national three-stage screening program implemented since 2008. Women to be screened are in age 30-60 years with interval every 5 years. Primary testing when screening procedure is being performed with two cytological methods - LBC (liquid-based cytology) CellScan system for the state program and a simple method with staining by Romanovsky-Giemsa, usually used in opportunistic practices. CellScan was produced by IMSTAR technology, France. Manufacturer - "Tech Bio Co.", South Korea. Specificity of the test is >85% and a sensitivity >90%, according to the manufacturer.

The aim of the ongoing study undertaken in frames of the Project on HPV (Human Papillomavirus) epidemiology, is a comparative analysis of both screening tools practiced in the region. Methods of the data collection and evaluation: smears by conventional method (staining by Romanovsky-Giemsa) are taken with Aire spatula (ectocervix) and cytobrush (endocervix) respectively. Taking smears for LBC is performed with special cytobrush, according to the

manufacturer instructions, as well as transportation and storage of vials. Preparations for the liquid based method are carried out on the South Korean equipment «CellScan-100" (semi-automatic) and «CellScan-200" (automatic). Interpretation and grading of smears obtained by two different methods is held according to the Terminology Bethesda System (TBS), 2001. Histology as a gold standard constitutes an independent evaluative parameter. Statistical processing of the results is provided by the following methods: descriptive statistics, ROC-analysis with designing of the ROC-curve and kappa-statistics ( $\kappa$ ) for the concordance rate calculating. Software: Statistica, version 10.0 (Dell Software Inc., USA).

Results briefly: currently, 265 liquid and 934 conventional smears have been analyzed separately, besides 65 pairs having histological conclusion. Number of non-informative smears for CellScan gained 8.7%, whereas 0.4% - for the conventional method; NILM (AC, D, E) – 60.4 and 55.0% respectively; F1 (ASCUS) – 11.7% vs. 19.1%; F2 - (LSIL, CIN-I) – 9.4 vs. 10.9%; F3 - (HSIL, CIN-II, CIN-III, CIS – cancer in situ) – 3.8% vs. 2.0%; AGC – NOC – 4.9 vs. 10.4%. ROC-analysis along with kappa calculation have been performed only for 65 pairs. Z-area for CellScan -  $.84 \pm .05$  (.74 - .94, CI 95%); for the conventional method -  $.92 \pm .035$  (.85 - .98, CI 95%). Kohen's kappa-analysis of attributive agreements: CellScan's  $\kappa = .47 \pm .08$  (.31 - .63, CI 95%); for conventional method  $\kappa = .62 \pm .08$  (.46 - .78, CI 95%).

Preliminary conclusions: overall, the advantage of the conventional method in comparison with the liquid method has been established: better concordance with the gold standard; better sensitivity; an insignificant amount of non-informative material in comparison with CellScan; great variation in conclusions. The study should be continued.

## **GENDER ASPECTS OF QUALITY OF LIFE OF PATIENTS WITH ACQUIRED MITRAL VALVULAR DISEASES**

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<sup>2</sup>*Kemerovo State Medical University, Kemerovo, Russia*

Acquired valvular diseases (AVD) are a very severe pathology and remain one of the most frequent reasons of cardiac death and disability of the population. Valvular prosthesis remains the main and the most effective method of AVD correction. Along with the generally accepted clinical and instrumental methods of postoperative evaluation of patients' state, an integral criterion of the efficiency of surgical treatment of valvular lesions is a quality of life assessment. Objective: We aimed to estimate the gender aspects of quality of life of patients with AVD, as well as its dynamics after the isolated prosthesis of mitral valve (MV).

Materials and Methods: The study included 140 patients aged 55-70 years with the isolated lesion of MV mainly of the rheumatic etiology (72.86%, n=102), underwent valvular prosthesis in the NII KPSSZ in 2013-2015. The groups of men (22.14%, n=31) and women (77.86%, n=109) were comparable in age ( $p > 0.05$ ) and severity of the initial state, characterized by a functional class of heart failure (CHF FC) according to the classification of New York Heart Association ( $p > 0.05$ ). Biological prostheses were implanted in 41.96% of men (n=13) and 46.79% of women (n=51), mechanical prostheses – in 58.6% of men (n=18) and 53.21% of women (n=58). All the patients prior to the valvular surgery and a year after the surgery underwent a research of the quality of life (QOL) using MOS SF-36 survey.

Results and Discussion: Prior to the surgery there were no statistically gender differences practically in all the parameters of physical (RPF: role-physical functioning; BP: bodily pain; GHP: general health perceptions) and psychological (V: vitality; SRV: social role functioning; REF: role-emotional functioning) health components ( $p > 0.05$ ). However the female recipients had significantly more low indicators of physical functioning (PF;  $p = 0.01$ ) and mental health (MH;  $p = 0.01$ ), which indicates on a higher level of anxiety and depression caused by a greater limitation of physical activity. A year after surgery the difference in the levels of MH had



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 - 5,7% 60%

28 ( 182 ) 150  
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 -8, 20 . 14

(76,9%), 5 (19,2%),  
 1 (3,9%). -  
 15 (60%), 6 (24%),  
 - 4 (16%) . 32  
 60  
 (53,3%), 19 (31,7%), - 9  
 (15%), 56  
 26 (35,7%), 18 (32,1%),  
 - 12 (21,4%). ,

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 , 1 78 , 161(74,53%) ,  
 - 113 (70,18%), - 48 (29,8%). ( )  
 112 (51,8%) , - ( ) 46  
 (21,29%) . 17 (7,8%) .

«SomatomDifinition AS 64», - «Magnetom Avanto 1,5 ».  
 «MultyModality», «SingoVia» «iNtuition»,  
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 161 , 127 (78,8%)  
 , 56 (34,7%) :  
 - 7 (20%), - 3 (15%),  
 -13 (65%).  
 1 - 10 18 (8,7%) , 11-20  
 4 (3,6%) , 21-30 4 (3,6%) , 31-40 9 (5,6%) ,  
 41-50 26 (16,1%) , 51-60 33 (20,4%), 61-70 47 (29,1%) ,  
 , 71-80 14 (8,6%) .  
 96 (59,6%)  
 13 (17,56%) , 78 (48,4%) .  
 48 (29,8%) .  
 13 (9%) .  
 101 (62,7%) ,  
 c : 45  
 (27,9%) ,

50% 39 (24,2%) ,  
 50% 17 (14,41%) .  
 :

## MATHEMATICAL MODELING OF THE DEPENDENCE OF THE PROBABILITY DENSITY OF THE AGE OF DEATH OF A PERSON ON TIME

Batyuk L.V., Knigavko V. G., Ponomarenko N.S., Chovpan H.O.  
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Dependence of the life expectancy of a person, more accurately the dependence of the probability density of human death on time, is determined by the known regularities of processes that determine mortality. Most often, the process of damage to certain physiological systems that determine the viability of the organism occurs by accumulating small, non-simultaneous damages of such systems. Each of these injuries is a random event. In order for the organism to die, it is necessary to accumulate a certain amount of such damage, and this accumulation is a probabilistic process [1].

Therefore, there is an analogy between the processes that lead to the death of people by the mechanism that is being discussed, and the mechanism of oncological diseases, described in [2-4]. This, in turn, means the possibility of describing the processes of people dying with the help of functional dependencies describing the mechanism of carcinogenesis. Therefore, to approximate the dependence of the probability density of the age of death of a person on time, we use a function having the following form:

$$f(t) = \frac{Nk \cdot \ln \xi}{T} \cdot \left( 1 - \left( 1 - \xi \frac{t}{T} \right)^k \right)^{N-1} \left( 1 - \xi \frac{t}{T} \right)^{k-1} \xi \frac{t}{T},$$

where  $t$  is the time of death of the individual;  $f(t)$  is the probability density of this time, the remaining variables are the approximation coefficients. The selection of the optimal approximation parameters in the last formula gave the following values:  $\xi = 1,00000313$ ;  $N = 2,45 \cdot 10^6$ ;  $k = 8,45$ .

In the literature data, only approximate values of these parameters exist. The model also does not take into account changes in the rate of cell division with age, which can also cause an error, the significance of which is unknown. To reduce the modeling error, it is useful to significantly increase the amount of statistical data used in modeling, since an acceptable amount of data should provide a smooth view of the experimental dependencies being investigated. The graphs of the computed analytical dependence and the experimentally obtained dependence prove the possibility of estimating the distribution of a certain number of certain genes, the damage of which causes malignancy of cells in the presence of empirical data concerning the age of death of a person. Most often it is believed that these genes are involved in DNA repair.

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» (Bekris M.L. et al., 2010; Carrillo M.C. et al., 2013).

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(Carrillo M.C. et al., 2013; Sutphen C.L. et al., 2014; . . ., 2014).

(Sharma S. et al., 2013).

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), (De Kosky S.T. et al., 2003).

(Nagai Y. et al., 1996, Barbanti



P. et al., 1999; Zaffaroni M. et al., 2008).

(Sutphen C.L. et al., 2014; Andreas Nabers, et al., 2016).

(Albert M.S. et al., 2011).

1.  $10^9 / l$ ,  $10^9 / l$

2.  $10^9 / l$ ,  $10^9 / l$

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2 : 1 - (780 (2020), 2

CD3+ ( ), CD4+ ( / ), CD5+ ( ), CD8+ ( - ), CD16+ ( ) Beckman Coulter ( ).

( $7,68 \pm 1,36 \cdot 10^9 / l$  ;  $2,14 \pm 0,6 \cdot 10^9 / l$  ;  $-1,80 \pm 1,3 \cdot 10^9 / l$  ;  $-5,61 \pm 1,4 \cdot 10^9 / l$  ;  $58\%$  - (CD3+) 88% 1 CD5+ ( $0,78 \pm 0,1 \cdot 10^9 / l$  ) ( $<0,05$ ;  $0,73 \pm 0,2 \cdot 10^9 / l$  ) 31% 2 (t=2,2, p<0,05). - / CD3+ ( $0,71 \pm 0,1 \cdot 10^9 / l$  ) / CD4+ 28,57% , 1 (  $0,41 \pm 0,1 \cdot 10^9 / l$  ) ( 46,67 98,03%). - - (1,17±0,1  $10^9 / l$  ). CD16+ 1 (71,27%), . CD16+ (CD3+)

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 261 13 25 , 2013-2015  
 126 (48,3%) 13 18 ,  
 135 (51,7%) 19 25 . (43,7%) 3-  
 2 - 71 (56,3%) 3 .  
 (p<sub>1,2</sub> 0,001, p<sub>1,3</sub> 0,001, p<sub>2,3</sub> 0,001).  
 (p 0,001), (p 0,05)  
 (p 0,01).  
 (OR<sub>1,2</sub>=4,2(1,3 OR 13,98)  
 p<0,01,  $\chi^2=4,8$ ), (OR<sub>1,3</sub>=2,4 (1,0<OR<5,6) p<0,05,  $\chi^2=2,9$ ).  
 (OR<sub>1,2</sub>=3,4(1,3<OR< 9.1) p<0,01,  $\chi^2=5.4$ ), (OR<sub>1,3</sub>=5,2 (2,1<OR<12,9) p<0,001,  
 $\chi^2=4,8$ ).  
 (p 0,05).  
 (p<sub>1,3</sub><0,001) p<sub>2,3</sub> 0,01).  
 (> 0,05).

(1,0<OR<25,3), P 0,05  $\chi^2 = 3,2$ )

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30-39 (101), - 40-49 (67  
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- 25,6%. - 74,4%, 29,2%, 26,2%,  
20,8%.

( 88,3% 39,2%). 68,5%

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50,6% 51,9%,  
20,2% 19,0%).

- 89,9% 82,3%, ( - 47,2% 46,8%,  
- 50,6% 44,3%), (>0.05).

(7,9% 17,7%), / (20,2% 31,6%), (64,0% 70,9%).  
( <0.05).

(91,3%)



## **INFLUENCE OF OBESITY ON THE QUALITY OF LIFE AND INDIRECT COSTS BY PATIENTS QUESTIONNAIRE RESULTS**

Khassenova A, Zhrliganova D, Tulemissova A.

*Astana Medical University, Astana, Kazakhstan*

**Introduction.** According to WHO, there are 44% of patients with diabetes, 23% of ischemic stroke, as well as in 7-41% of patients with various forms of cancer that are overweight or obese [A. Stunkard, I. Alexander, T. Chiang, 2008]. In Kazakhstan, in 1995-1996, overweight was typical for 42% of the adult population of Kazakhstan, in 2008, it increased to 50.6, and in 2012 the weight of overweight people became more than 55% of Kazakhstan population [A. Ametov, T. Demidov, 2012]. There are various methods for the treatment of obesity capable of not only improve, but also impair the quality of life that requires careful study of such effects. Also, the cost for each method of treatment differ in the amount and source [L. Lebedev, B. Fisher, R. Schauer, 2012].

The aim of the study is: To compare the quality of life and indirect costs in the treatment of obesity. Objectives: 1) Explore methods for the treatment of obesity and to determine the quality of life for patients in their application; 2) To study the structure and dynamics of the indirect costs of obesity.

**Materials and Methods:** Totally there were 171 people surveyed. All of them are suffering from obesity (BMI over 30). Respondents were divided into the following groups: 76 patients without conducting the correction weight; 78 - regularly using conservative means for weight loss (dietary supplements, exercise, psychological correction); 17 - after surgery (gastric bypass). There were used a number of surveys to determine 1. the quality of life (SF-36, BAROS) and to determine 2. the patient material costs (indirect costs).

**Results and Discussion:** The results obtained reveals the different reflection of the relationship of the quality of life and economic costs of patients in the 3 groups. Among the patients of the 1st and 2nd groups they showed the stable low-average of physical (48% and 52%) and emotional functioning (52% and 58%, respectively), the health self-assessment higher in group 1 (64% and 56 %). At the same time the gap in indirect costs are more significant (\$ 75.8 and \$ 112 monthly).

Indicators of the quality of life of patients after bariatric surgery (group 3) differ from 1st and 2nd groups in the direction of improvement - 72% and 70% levels of physical and emotional functioning with the same high level of health assessment (74%). Although indirect costs remain high (\$ 106 monthly) by maintaining special diets, exercising, receiving expensive vitamins.

**Conclusion:** The quality of life in the group 3 is connected with the positive dynamics of the pathology associated with obesity, and the analysis of indirect costs showed that the costs of obesity remain high in all groups.

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(Kenneil J. Et al., 1991;

ZhangJ., Bernasko J.W., et al., 1996, Hodnett E.D., 2007).

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556 (89%); 52%; 11%-. 48%-. 95% 3% 1% 5 67% .82 % 57% .12 1%

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Genotype	tHcy (nmol/L)		p
	1- (n)	2- (n)	
TT	22,35±2,59	13,70±1,82	<0,05
CC	8,68±3,49	9,17±4,34	>0,05
CT	8,68±3,49	9,17±4,34	>0,05

## THE ROLE OF FOLIC ACID AND VITAMIN B12 IN GENETIC DISORDERS OF HOMOCYSTEINE METABOLISM IN WOMEN WITH RECURRENT PREGNANCY LOSS

Visternicean E.

*Department of Obstetrics and Gynecology No 2, «Nicolae Testemitsanu State University of Medicine and Pharmacy», Chisinau, the Republic of Moldova*

The vitamins folate and B<sub>12</sub> serve as coenzymes for the main homocysteine regulating enzymes. By the other hand, their role in reproduction have been discovered more recently. Aim of the study was to evaluate the role of folic acid and vitamin B<sub>12</sub> in genetic disorders of homocysteine metabolism in women with recurrent pregnancy loss.

**Materials and methods.** The study included 57 women of fertile age who had experienced the loss of at least two consecutive pregnancies. The level of the total serum homocysteine (tHcy), folic acid and vitamin B<sub>12</sub> was *measured* via the *chemiluminescent method*. The PCR-RFLP method was applied to detect the MTHFR C677T and MTR A2756G polymorphisms. Subjects were divided into two groups: women with

**Results.** Folate, vitamin B<sub>12</sub> and tHcy were studied in relation to the MTHFR C677T and MTR A2756G polymorphisms.

The interaction between folate status and MTHFR genotypes as determinants of tHcy was evaluated in two ranges of folate status (folate < 13,5 nmol/L, folate > 13,5 nmol/L). The influence of MTHFR TT genotype on tHcy level was seen only when folate was < 13,5 nmol/L. So, the TT group had significantly higher tHcy levels than CC (22,35±2,59 vs. 13,70±1,82 µmol/l) when folate was < 13,5 nmol/L, whereas this difference disappeared at the CC and CT groups when folate was above 13,5 nmol/L (8,68±3,49 and 9,17±4,34 µmol/l) (p < 0.05). There was found no patient with TT genotype when folate was > 13,5 nmol/L. Increased tHcy levels seen in the TT group with folate < 13,5 nmol/L accompanied with significant lower levels of folate (6,90±0,42 nmol/L).



Also, the interaction between vitamin B<sub>12</sub> status and MTR genotypes as determinants of tHcy was evaluated in two ranges of vitamin B<sub>12</sub> status (vitamin B<sub>12</sub> < 259 pmol/L, vitamin B<sub>12</sub> > 259 pmol/L). The GG group had significantly higher tHcy levels than AA (24,55±14,35 vs. 13,26±1,19 µmol/l) when vitamin B<sub>12</sub> was < 259 pmol/L (p <0.01). Increased tHcy levels seen in the GG group with vitamin B<sub>12</sub> < 259 pmol/L accompanied with significant lower levels of vitamin B<sub>12</sub> (167,58 ±10,81 pmol/L). The influence of MTR GG genotype on tHcy level was seen also when vitamin B<sub>12</sub> was above 259 pmol/L, so, the median tHcy was 15,8 µmol/l, even if vitamin B<sub>12</sub> was high (314 pmol/L). The influence of MTHFR C677T and MTR A2756G polymorphisms on tHcy was *observed with certainty when folate and vitamin B<sub>12</sub> status were below the reference limit*. This data demonstrating the importance of the interplay between vitamin B status and genetic factors of homocysteine metabolism in women with recurrent pregnancy loss.

Conclusions. The interaction between folate and vitamin B<sub>12</sub> status and MTHFR C677T and MTR A2756G polymorphisms in women with recurrent pregnancy loss may be determinants of total serum homocysteine, especially *when folate and vitamin B<sub>12</sub> status are below the reference limit*.

## PREVALENCE OF HYPERHOMOCYSTEINEMIA AND MTHFR C677T, MTHFR A1298C, MTRR A66G, MTR A2756G POLYMORPHISMS AND THEIR RELATION WITH RECURRENT PREGNANCY LOSS

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<sup>1</sup>Department of Obstetrics and Gynecology No 2, «Nicolae Testemitsanu State University of Medicine and Pharmacy» Chisinau, the Republic of Moldova

<sup>2</sup>Medical Center «Repromed», Chisinau, the Republic of Moldova

The management of recurrent pregnancy loss (RPL) is an unsolved problem and up to 50% of cases of recurrent losses will not have a clearly defined etiology. Aim of the study was to determine the prevalence of hyperhomocysteinemia, serum folate and cobalamin deficiency and polymorphisms in genes MTHFR, MTR and MTRR in women with history of two or more consecutive pregnancy loss.

**Materials and methods.** A *cross-sectional* study included 57 women who had experienced the loss of at least two or more consecutive unexplained pregnancies. The level of the total plasma homocysteine (tHcy), serum levels of folate and vitamin B<sub>12</sub> were *measured* via the *chemiluminescent method*. The PCR-RFLP method was applied to detect the MTHFR C677T, MTHFR A1298C, MTR A2756G, MTRR A66G genotypes.

**Results.** The results of our investigations showed that tHcy  $\geq 12 \mu\text{mol/l}$  were found in 30 patients (52,64% 95% CI 39,68 – 65,6), low serum folate were found in 9 patients (15,79% 95% CI 6,32 – 25,24) and 8 patients were detected having cobalamin deficiency (14,04% 95% CI 5,03 – 23,05). The frequency of *mutated MTHFR genotypes*: 677TT was 14,04% (95% CI 5,03 – 23,05) and 1298CC was 10,53% (95% CI 2,57 – 18,49). The frequency of *MTR 2756GG genotype* was 5,26% (95% CI -0,44 – 10,96) and the *MTRR 66GG genotype* was present in 22,80% (95% CI 11,91 – 33,69). Serum tHcy levels were significantly higher in women with the genotypes MTHFR 677TT ( $22,35 \pm 2,59 \mu\text{mol/l}$ ), MTR 2756GG ( $21,63 \pm 8,01 \mu\text{mol/l}$ ), MTRR 66GG ( $14,30 \pm 2,24 \mu\text{mol/l}$ ) and MTHFR 1298CC ( $12,12 \pm 1,69 \mu\text{mol/l}$ ) when the serum folate and vitamin B<sub>12</sub> levels were below the median level. The tHcy level was evaluated in relation to the types of recurrent miscarriage in women with *unexplained pregnancy loss*. The results of our study showed that *homocysteine* levels in the blood serum of patients suffering from primary

RPL was higher ( $14,74 \pm 1,12 \mu\text{mol/l}$ ) compared with patients suffering from secondary RPL ( $9,94 \pm 0,92 \mu\text{mol/l}$ ) ( $p < 0,01$ ) and, also, the tHcy in the study group was higher ( $13,61 \pm 0,87 \mu\text{mol/l}$ ) in the *patients* with a history of early RPL than in the *patients* with a history of late RPL ( $9,14 \pm 1,62 \mu\text{mol/l}$ ) ( $p < 0,05$ ). We observed a very high frequency of analyzed mutant genotypes in women with primary RPL in comparison with women with secondary RPL: MTHFR 677TT (100,0% 95% CI 93,08 – 106,92), MTHFR 1298CC (66,67% 95% CI 28,95 – 104,39), MTRR 66GG (92,30% 95% CI 77,81 – 106,79), MTR 2756GG (66,67% 95% CI 13,33 – 120,0) ( $p < 0,001$ ). Also, the prevalence of MTHFR 677TT (100,0% 95% CI 93,08 – 106,92), MTHFR 1298CC (100,0% 95% CI 92,0 – 108,0), MTR 2756GG (100,0% 95% CI 88,69 – 111,3) and MTRR 66GG (100,0% 95% CI 94,57 – 105,43) genotypes were exclusively in women with early RPL in comparison with women with a history of late RPL ( $p < 0,001$ ).

Conclusions. Hyperhomocysteinemia and MTHFR C677T, MTHFR A1298C, MTRR A66G, MTR A2756G polymorphisms may be a risk factors for primary and early RPL when the serum folate and vitamin B<sub>12</sub> levels are low.

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: 2,18-6,03), ( =3,27; 95% : 2,17-4,19),

( =5,94; 95% : 2,33-8,56), ( =7,41; 95% :

4,12-8,47).

(AUC=0,95; < 0,001),

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### **COMBINED METABOLITOTROPIC ENDOTHELIO PROTECTOR "ARGITRYL" - NEW WORD IN COMPLEX THERAPY OF HEART AND VESSEL DISEASES**

Mazur I.I., Belenichev I.F., Kucherenko L.I., Khromyleva O.V.

*Zaporozhye State Medical University, Zaporozhye, Ukraine*

*SPA "Farmatron", Zaporozhye, Ukraine*

According to modern concepts, endothelial dysfunction is one of the leading pathogenetic links of cardiovascular diseases. However, to this day no drug has been developed with proven endothelioprotective effect. Based on the current understanding of the mechanisms underlying endothelial dysfunction, the effective metabotropotropic endothelioprotector should activate the physiological mechanisms of NO production and enhance eNOS expression, regulate VEGF expression and endothelial cell proliferation, normalize thiol disulfide balance, increase the NO bioavailability forming nitrosothiols and protect it from conversion into peroxynitrite. Currently, thiotriazoline has become widespread as a metabotropic cardioprotector and the endothelioprotective effect is predicted in the precursor of NO-L-arginine. A combination drug - thiotriazoline and L-arginine (1:4) was designed in the form of solution for parenteral administration and tablets named "Argitryl" was designed by the employees of SPA "Farmatron", Zaporozhye with a view to creating an effective metabolitotropic endothelioprotector. Argitryl exhibits endothelioprotective properties, due to its ability to increase NO production and its bioavailability against the background of increased eNOS expression. The drug does not only increase the concentration of NO, but also its bioavailability in endothelial dysfunction of the vessels of the myocardium. Argitryl reduces the formation of

peroxynitrite and homocysteine in the myocardium in ischemia. Argitryl increases the density of cardiomyocytes, increases the RNA content in the nuclei and cytoplasm of cardiomyocytes, reduces the necrosis, improves the energy metabolism of the heart in experimental myocardial infarction. Argitryl in acute myocardial ischemia activates the glutathione unit of the thiol-disulphide system. Argitryl reduces molecular and immunohistochemical markers of endothelial dysfunction in chronic heart failure. In relation to the above mentioned properties of Argitryl, its widespread use in the complex therapy of atherosclerosis of coronary and peripheral vessels, ischemic heart disease (angina pectoris, myocardial infarction, postinfarction cardiosclerosis), arterial hypertension, cardiomyopathy, chronic heart failure is planned.



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C. Parma (1960),

A. L. Russel (1956).  
J. C. Green J. R. Vermilion

(OHI-S, 1964).

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38,4±4,7 . (17,8%). (41,3%), (11,0%). 11

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- 5. « » 09 2016 .
- 6. Ludmir J., Sehdev H.M. // ClinObstetGynec. – 2000. – 43;3. – P. 433-439

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 2 (6,7%) ,  
 - 2 (6,7%) - 1 (3,3%)  
 11 (36,7%) ,  
 - 30 (100,0%).  
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 ( ) , 2 (6,7%) - 2- ( ) , 12 (40,0%) - 3-  
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 15 (50,0%) .  
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 10,0% - 3,3%.  
 15 (50,0%) , - 6 (20,0%) - 9 (30,0%).  
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(VDR)

« - , » , , ( ) , , VDR VDR - - 3. (VDR) D : 110 15,3±1,2 ; 66 44 . SONOST-3000 ( ) Z-score : -1SD ; -1SD -2,5SD - ; -2,5SD - (7014A-VDR) ( ) VDR D (SNP) D : 2,3 - : 83% 17% ; ( ) : 64% 36%; 71% 29% ( <0,05); ( ) ; 60% - ; 100% (VDR) -

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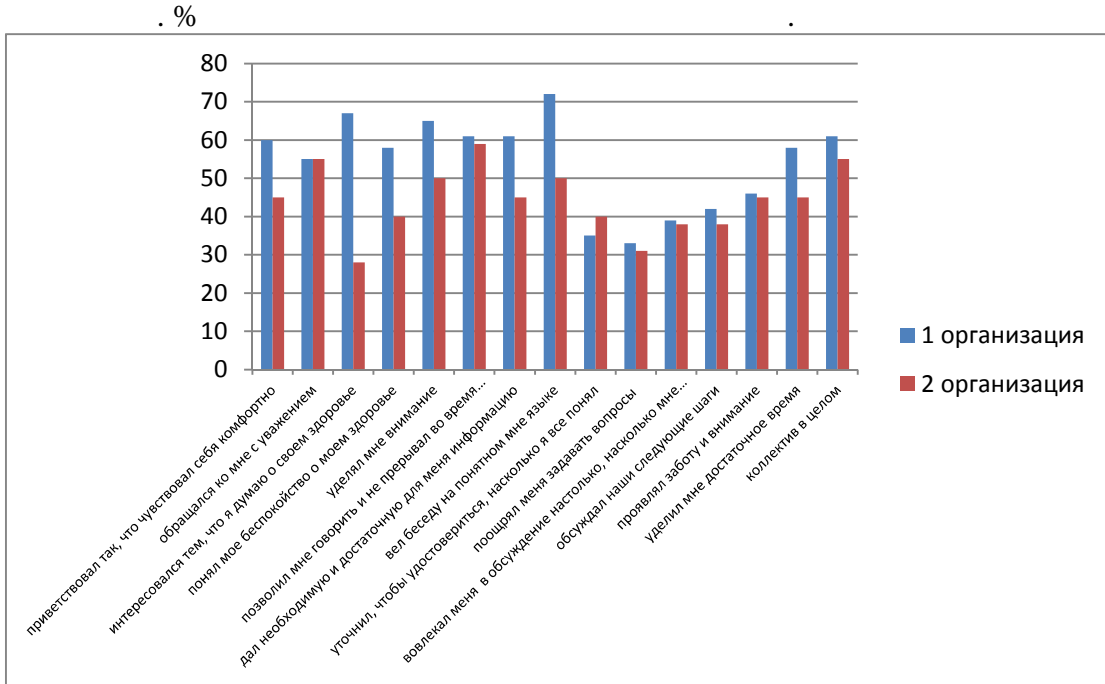
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50,3±7,9 .  
- 441 (33 %),  
1910.  
95% . 15  
: 1052 13 78,7% (95% 78,4-79)  
(5,3%), (3,3%). (5,7%),  
( 76%, 16%),  
( 82%),  
(27,8%), (14,1%)  
(7,6%).  
(64%) 72%

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200

Stellenbosch University Patient-practitioner orientation

scale (PPOS).

35-40 %

(60 %),  
70

(70 %)

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Checker (FDA).

	Moderate		O	95%
>5	546 (73,2%)	162 (21,7%)	2,45	1,26-4,78
5	22 (2,9%)	16 (2,1%)		
>10	312(41,%)	106 (14,2%)	1,8	1,27-2,52
10	256 (34,3%)	72 (9,7%)		

9,7-14,5)%

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- 75,8 (95%

- 11,9 (95%  
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10 ( 1,8, 95% 1,3-2,5)

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3. <http://med-obuch.kz/nedostatochnost-yoda-diagnostika-le/>

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); 30 ( 2,2%) ; 39 (2,9%)

- ; 183 (13,4%) - ;

129(9,5%) ; 397 (29%)

66,9% . 11,9%

21,2% .

2013-2016 . 136(9,96 %) . 114 (83,8%)

22(16,2 %) -

2016 366 ,

35(9%), 2(0,5%)

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6(1,6%), - 2(0,5%), - 2(0,5%), \

- 3(0,8%), -

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**EXPERIMENTAL MODEL SPINAL CORD ISCHEMIA IN RATS**

Velihanov F.T., Aliyev K.T.

*Dagestan State Medical University, Makhachkala, Republic of Dagestan, Russia*

Actuality. Spinal stroke is accompanied by coarse, persistent neurological and physical disorders. Ischemia Modeling allows you to explore the pathophysiological processes in the spinal cord and improve treatment results

The purpose of the study Development of an experimental model of spinal cord ischemia.

**Material and methods:** Chronic experiment was carried out in the rat model Sprague-Dawley strain of the same sex and age of the masses. anesthesia under general anesthesia with chloral hydrate (450 mg / kg), injected intraperitoneal. The first models of the dressing of the abdominal aorta below the renal arteries, the second model collaterals crossing coming from the abdominal aorta below the renal arteries to the spine, without crossing the aorta, the third model in the intersection of collaterals coming from the abdominal aorta below the renal arteries to the spine, and ligation of the inferior vena cava at this same level. We watched the neurological deficit, and then carried out the introduction of brilliant blue and macro preparations study with subsequent histological examination of sections of the lumbosacral spinal cord of animals to detect ischemic changes in neurons.

**Results:** In the course of the study was able to check three models of ischemia. The first model of acute ischemia caused the second and third causes chronic ischemia. In cytoarchitectonics spinal cord of experimental animals revealed the predominance of shrunken and hyperchromatic corrugated neurons and cell-shadows, as well as glial reaction.

**Conclusions:** 1) The model with occlusion of the abdominal aorta below the renal arteries in Sprague-Dawley rats is impossible to differentiate from peripheral claudication mielogenous intermittent claudication; 2) model of two and three lead to chronic ischemic lesions lumbosacral spinal segments and can be considered as a model of spinal ischemic stroke in rats.

1-2 ( 50 % ) 2 .  
 <0,01) ( 41,3 % ,  
 4- 70 %).  
 40 % . ( 36 % , p<0,01)

**IN VITRO**

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 K. pneumoniae, P. aeruginosa ( 6 ) S. aureus, E. coli,  
 ~10<sup>6</sup> / ,  
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	M±m	(RF**)	
S.aureus n=6	M	2,303	5,947
	m	0,097	0,233
E.coli n=6	M	2,196	6,562
	m	0,269	0,158
K. pneumoniae n=6	M	3,019	6,094
	m	0,373	0,513
P. aeruginosa n=6	M	1,757	5,243
	m	0,107	0,470

( 1),

S. aureus, E. coli, K. pneumonia P. aeruginosa : (RF)  
 (5,95±0,23; 6,56±0,16;

6,09±0,51; 5,24±0,47) , . .

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P. aeruginosa.  
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**CRF02\_AG -1**

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-1 CRF63\_02A1, CRF02\_AG

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CRF02\_AG (URF63\_A1, URF63\_02AG, URF63\_B, URF02\_A1), 5% 20% -1.

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(2014 - 2016 ),

23,7%, -38%, -37,3%

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Beer and Sizer (1952),  
 (DiaSys, i 6300Duo (Thermo Scientific, ).

Mg<sup>2+</sup> (r=0,559),  
 Mg<sup>2+</sup> (r=0,506). Mg<sup>2+</sup>

( 1,7 )

(Altura BM, 2009).

H<sub>2</sub>O<sub>2</sub>

(Simona Emilia Flonta, 2009)  
 , 2014).

H<sub>2</sub>O<sub>2</sub>, HOCl-,  
 (Georg Bauer, 2015).

3,1; 3,2 10  
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(Meng Q.H., Wagar E.A. 2014).

Cu+ ( 49 %), Zn2+ ( 2,5-5 ), Fe ( 45%).

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M. ., 2004).

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Ras,

(Tong J. .,

2008).

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(Scrima R. ., 2014).

## **NEUROBIOLOGICAL MECHANISM OF ADAPTATION TO HYPOXIA**

Erlykina E.I.

*State Medical Academy, Nizhny Novgorod, Russia*

The understanding of biological systems has enormous success due to the progress in biochemical research. Obviously such investigations will help to advance medical research. Special attention in recent years has been paid to the problem of brain adaptation to hypoxia. In this process an important role belongs to the changes in cell redox signalling.

Oxygen starvation is observed in a variety of pathological states and serves as one of the urgent problems in medicine. A decrease in oxygen supply to tissues is accompanied by the inhibition of metabolic processes (primarily of energy metabolism), which impairs functional activity of the brain. The main source of energy for brain is adenosine triphosphate (ATP). It was shown that the components of adenylate pool can be used as early predictors of hypoxia. Then, after the 14 days of hypoxia, the origin balance of glycolysis and the Krebs cycle reactions is restored to the value corresponding to intact specimens.

Besides, changes in energy supply as shown in various research paradigms provide activation of neuroprotection system and improvement of neuronal functions under various stress conditions including hypoxia, ischemia and oxidative stress. Our study strongly indicates that changes in the redox signalling are correlated to the intensity of free radical oxidation. The lowest results of the intensity of free radical reactions were noted at early (4 th day) and late day (28 th day) of hypoxia. The acute hypoxia is accompanied by the increase of the amount of protein carbonyl derivatives, concentration of aldehydephenylhydrozones rises in 2.4 times. The antioxidant potential was the same as in intact rats, increasing at the 28-th day. The adaptive changes of brain metabolism to acute hypoxia connects with the increase of initial rate of the associated and membrane-binding forms of creatine phosphokinase (CPK), the key enzyme in energy metabolism, changes in the affinity of the enzyme to substrate and the abnormal behavior of the kinetic of the reaction. Four days of hypoxia restore the original activity of CPK increasing the amount of tightly bound form of enzyme. The concentration of ATP is slightly increased too. Further studies of molecular mechanisms are important for better understanding the cellular response to oxygen defficiency and designing the drugs protecting the brain against hypoxia.

## **TRANSITION AND CONDITION OF THERAPEUTIC SERVICE IN KAZAKHSTAN**

Zhamantayev O.K.

*Karaganda State Medical University, Karaganda, Kazakhstan*

Background. Kazakhstan is the country in transition. The health system is also transformed and country is trying to find the system that will be best for health requirements and economical possibilities of the country.

Aim: The aim of this study is to examine the organization of specialized medical care of therapeutic services and satisfaction of patients and specialists with the service organization.



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1.

	r=0,013 p=0,802	r=-0,1 p=0,008	r=0,007 p=0,888	r=-0,144 p=0,004	r=0,014 p=0,776
	r=-0,013 p=0,717	r=-0,1 p=0,027	r=-0,028 p=0,573	r=-0,037 p=0,457	r=-0,100 p=0,047
	r=0,07 p=0,1	r=0,027 p=0,584			r=-0,078 p=0,122
	r=0,121 p=0,016	r=-0,046 p=0,354			
	r=-0,247 p=0,001	r=0,056 p=0,265			

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SPSS v.21 for OS Windows.

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1 (n=386),  
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Statistica 7.0.

89,6% 1 64,0% 2 6  
( <0,001), 1 - 92,6% 42,0% ( <0,001).

74,8% 87,5 1 ( <0,001), 2 -  
40,4% 26,1% ( <0,001). 1 6  
64,7%, - 75,7% 2 29,1% ( )  
24,5% ( ) ( <0,001). 1

96,9%

98,6%, - ( ) 88,4% 86,4%,  
( ) 49,8% 63,9% ( <0,001). 2  
55,5% 53,2%, 56,9% 54,1%, 25,2%  
20,7% 6 ( <0,001). 1 2  
50,6%, 51,2% 21,3% ( <0,001). 2  
6- 49,8%

16% ; - 6,7%;  
- 10,2%; - 5,8%; - 5,8%,  
- 4,9%. 1 1 3,1%,  
2 - 11,4% ( <0,001, 4,0; 95% : 1,9-8,5), 1 1,3%,  
2 - 8,4% ( <0,001, 7,0; 95% : 2,5-19,8). 1  
1 1,6% , 2 - 3,6% ( =0,13, 2,4;  
95% : 0,8-7,5).  
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**RESEARCH OF SOME BIOCHEMICAL INDEXES OF BLOOD OF THE RATS CHARACTERIZING THE FUNCTIONAL CONDITION OF A LIVER AND KIDNEYS AT COURSE INHALATION BY THE COMPLEX PREPARATION "APINGALIN" IN THE CONDITIONS OF ENDOGENIC INTOXICATION**

Anashkina A.A.<sup>1</sup>, Kopylova S.V.<sup>2</sup>, Vlasova K.M.<sup>2</sup>

<sup>1</sup> *State Educational Establishment of Higher Professional Training Nizhny Novgorod State Medical Academy of the Ministry of Public Health of the Russian Federation, Nizhny Novgorod, Russia*

<sup>2</sup> *FGAOU VO "National Research Lobachevsky State University of Nizhny Novgorod» Ministry of Education and Science RF, Nizhny Novgorod, Russia*

Endogenic intoxication is the pathological process which is shown in accumulation in fabrics and liquids of an organism of surplus of products of exchange. Rather often endogenic intoxication is the accompanying pathology at various diseases of the person. Therefore development and deployment of a preparations of a natural origin for treatment of endogenic intoxication is the relevant direction for the modern biomedicine. The complex preparation "Apingalin" is the represent the aqueous-alcoholic suspension prepared on the basis of bee propolis and of royal jelly, possessing a broad spectrum of activity on an organism.

Work purpose: a research of some indexes of blood of the rats characterizing the functional condition of a liver and kidneys at course inhalation by the complex preparation "Apingalin" in the conditions of endogenic intoxication. Researches were conducted on 30 white rats (females of breed of Wistar, weighing 180-200 g). Animals were divided into groups: intact animals; control — the animals, which modeled endogenous intoxication by introduction of epinephrine hydrochloride intraperitoneally in a dose of 0,5 mg/kg; experience – the animals, which modeled endogenous intoxication and then for 10 days were carried out inhalations by the complex preparation "Apingalin" during 15 min.

In the control group decrease of concentration of the common protein and an albumin in blood serum was observed (63% and 50% respectively) in 10 days after modeled of endogenic intoxication. Also the presence of gipofermentemiya was established: activity of an alaninaminotranspherase (ALT) and aspartate aminotransferase (AST) decreased. The received results allow to note that intensity of catabolic processes in a liver prevailed over anabolic. This imbalance can be caused by violation of the functional activity of a liver and development of a liver failure that can lead further to a necrosis of tissues of liver. Level of a creatinine and urea increased (by 22% and 25% respectively) in comparison with the "intact animals" group. What demonstrates violation of the functional activity of kidneys. Decrease in functions of kidneys and a liver as "vicious circle" increases intensity of endogenic intoxication in an organism.

When conducting the course inhalation complex preparation Apingalin in the experimental group was noted increase in concentration of the common protein and an albumin in blood serum (for 50% and 16% respectively), activity of ALT and AST increased. At the same time, decrease in level of a creatinine and urea was noted (10% and 12% respectively).

Follows from the received results that the course inhalation by complex preparation on the basis of propolis and of royal jelly of bees - Apingalin has positive influence on functions of a liver and kidneys in the conditions of endogenic intoxication that is shown in a normalization of the studied biochemical indexes of blood of rats.

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 , , (63%).  
 , 15-18% , (70%).  
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2013-2016 .

- 61.68 ±1.94 , 3 - 140.33 ±3.72 ) (1 - 32.70±0.61 , 2

Plus V 5.1», p 0.05. - «STATCALC». «STATGRAPHICS

“ 5.07±0.43 ; 46.85±1.63 ; «wheezing» - 66.67±1.23 ”( ) 45.83±1.94 ;

( ).

RR=1.101, $\chi^2=2.73$ , $p=0.08$	RR=1.581, $\chi^2=4.26$ , $p=0.04$	
	( )	( , , )
	RR=2.474, $\chi^2=4.57$ , $p=0.02$	RR=2.474, $\chi^2=4.57$ , $p=0.02$
	RR=1.486, $\chi^2=3.74$ , $p=0.03$	



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## ON THE ISSUE OF SELECTION OF OPERATION METHODS IN THE COURSE OF HIRSCHSPRUNG'S DECEASE AMONG ADULTS

irzahmedov . . .

*Tashkent Medical Academy, Tashkent, Uzbekistan*

Topicality of the problem. The issues concerning the patterns of the sickness run, its dependency on structural changes of the large intestine panels, the diagnosis and the treatment policy among adult patients remains relevant which requires further investigation.

The aim of our research appears to be the study of the causes of unsuccessful outcomes of surgical interferences and the development of differentiated approach to the selection of optimum means of operations in the course of Hirschsprung's decease among adults.

Materials and methods. 82 patients aged between 16 and 30 diagnosed with Hirschsprung's decease have had hospital treatment between 1992 and 2014 in Republican research center of coloproctology.

The outcomes and discussion. For the comparative analysis of efficiency of surgical treatment we divided the patients with Hirschsprung's decease into 2 groups: 44 (53,6%) of the patients were performed the Duamel operation, 29 (31,7%) of them were done an abdominoanal resection of straight intestine with voiding the proximal portions of straight intestine into the anal canal by overlapping the kolo- anal inosculation, 12 (14,6%) of the deceased were performed the partial resection of the hypo or aganglionic zone, the decompensate part of large intestine and the colostomy was formed. One of the main parameters of efficiency of surgical treatment of Hirschsprung's disease is the development of postoperative complications. Thus, after operation of Duhamel because of technical difficulties of formation of the rectal stump the insufficiency of the stump was observed in 5,5 % of cases. After operation PAR of the rectum such complications, as abscess of the cavity of a small pelvis, necrosis and retraction of pull-through, peritonitis developed accordingly in 1,8; 1,5 and 1,2 times less often. In the early postoperative period the complication have arisen in 18 (22 %) operated patients. One patient died (1,2 %). The late postoperative complication after PAR of the rectum observed in 8 (9,8 %) patients: in 2 (25 %) of them was partial stricture of the pull-through intestine. After operation of Duhamel in modification complications as strictures of colorectal anastomosis were developed in 6 (75 %) patients. Conclusion. Performance of peritoneal-anal resection of the rectum with pulling through of functioning proximal parts of the large intestine into anal canal simplifies technique of operation at Hirschsprung's disease and in the greater degree meet the requirement of radicalism, than method of Duhamel.

The offered method of peritoneal-anal resection of the rectum with pulling through in modification had advances in comparison with method of Duhamel: in the patients operated by the first method such postoperative complications as abscess of the small pelvis cavity, necrosis and retraction of the pulling through intestine, peritonitis occurred in 1.8, 1.5, and 1.2 times less often, respectively, than after operation of Duhamel.

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( ) 298 (23,3%)  
 , - 174 (58,4%),  
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 : 298  
 , 105 (35,2%) - , 193 (64,8%) -  
 : 141 (47,3%) -  
 , 157 (52,7%) - , 62 (20,1%) - , 42 (14,1%) -  
 , 60 (20,1%) -  
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### **PROTEIN OXIDATIVE MODIFICATIONS IN EXPERIMENTAL PHARMACOLOGICAL STRESS AND ITS TREATMENT WITH A MIXTURE BASED ON BEE PRODUCTS**

Anashkina A.A.<sup>1</sup>, Kopylova S.V.<sup>2</sup>, Vlasova K.M.<sup>2</sup>

<sup>1</sup> *State Educational Establishment of Higher Professional Training Nizhny Novgorod State Medical Academy of the Ministry of Public Health of the Russian Federation, Nizhny Novgorod, Russia*

<sup>2</sup> *FGAOU VO "National Reseach Lobachevsky State University of Nizhny Novgorod» Ministry of Education and Science RF, Nizhny Novgorod, Russia*

The aim of this investigation was to study protein oxidative modifications (POM) in experimental pharmacological stress and its treatment with mixture of bee products. For the study 60 adult rats (males) weighing 0,18-0,2 kg was used. Study was carried out in accordance with the European Convention for the protection of vertebrate animals used for experimental and other scientific purposes. Animals were divided into groups: intact animals; control animals, which were damaged by pharmacological stress ( pinephrine was injected intraperitoneally at a dose of 0.5 mg/kg); experimental – animals with epinephrine stress, which were treated by inhalation of mixture based on propolis and royal jelly of bees (10 days, 10 min.). The activity of POM was evaluated for the content in blood plasma aldehyde-dinitrophenylhydrazones (ADPH) and ketone-dinitrophenylhydrazones (KDPG) of the basic and neutral character. The results were processed statistically using Student's t-test.

It was found that epinephrine in a dose of 0.5 mg/kg enhanced degradation of the proteins in the organism of experimental animals. The contents of the primary markers of oxidative stress amounted to 49.2%, of which the share of ADPHneut accounted for 5.1%, and the share of ADPHbasic – 44.1 per cent. In the total number of POM content of the secondary markers was 50.8%, of which KDPGneut - 42,8%, KDPGbasic – 8%. Thus, the contents of the primary and secondary markers of oxidative stress of the control animals are nearly equal. That indicates the intensification of the oxidation processes due to fragmentation of protein molecules and their aggregation. The number of primary markers of oxidative stress increased in 6 times compared to the group "intact animals". It is probably connected with the appearance in the blood a large



2 – 36,4% ( <0,001).  
 1: 45,7% , 54,3% - , 2 - 78,1%  
 21,9% R  
 1 1 9%, 2  
 1 1 2,7%, 2 – 25,6% ( <0,001, 12,5; 95% : 4,0-39,1),  
 1,6% 15,4% ( <0,001, 11,1; 95% : 2,5-46,6).  
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 18 (20,67%), II - 14 (16,09%), III - 36 I  
 (41,38%), IV - 19 (21,84%); - 22  
 (25,29%), - 3 (3,45%), - 13 (14,94%), -  
 16 (18,39%), - 15 (17,24%), - 7 (8,05%), - 3  
 (3,45%), - 1 (1,15%) - 1 (1,15%).  
 15 , 36  
 53 . 5 10 . 53  
 (34 – 56 ). " 20/20i" ( ).  
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 Biostat 2008.  
 . I (5,7±0,23 / )  
 (4,8±0,06 / ). II, III IV  
 (II-5,6±0,2 / ; III-5,6±0,15 / ; IV-  
 5,4±0,25 / ).

(5,5±0,29 / ). - (5±0,1 / ) I  
 (II-2,8±0,38 / ; III-2,6±0,39 / ) II III  
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 ( - : 2,2±0,2 / ; : ,  
 9,16±0,73 / ) , ,  
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 3 (GSK-3 ).  
 GSK-3 . GSK-  
 3 .  
 GSK-3 eIF-2, . GSK-3  
 NF-kB - XIAP Bcl-2,  
 p-53 / Rb- . GSK-3  
 D1,  
 S- . GSK-3  
 , p27 p21, .  
 GSK-3 / , Wnt/ - .  
 GSK-3 ,  
 3 D1, WISP-1 - , . GSK-  
 IRS ( .  
 ) ( .  
 GLUT4 ). GSK-3  
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 ,  
 (4,7±0,28 / )  
 (4,8±0,06 / ), , ,

## **ELECTRONIC CIGARETTES: POTENTIAL DANGER OF SOME EVAPORATED SUBSTANCES FOR BRONCHI AND LUNG**

Zagoskin P.P., Zagoskina I.P., Shprykov A.S.

*Nizhny Novgorod State Medical Academy, Nizhniy Novgorod, Russia*

**INTRODUCTION:** Electronic cigarettes (EC) were suggested as a tool for tobacco smoking cessation. The chemical composition of EC liquid does not contain most of toxic substances that are present in tobacco smoke. The liquid usually contains water, minimal doses of nicotine, some smoke-simulative substances, aromatizers, and flavoring components. However in recent years it was proved that long-term exposure EC vapor induces some negative effects especially in the respiratory tract (RT) and oral cavity tissues of EC smokers.

**MATERIALS AND METHODS:** Evaluation of EC liquid chemical composition and reveal the substances that could be absorbed on the respiratory tract epithelial cells and induce some pathological phenomena.

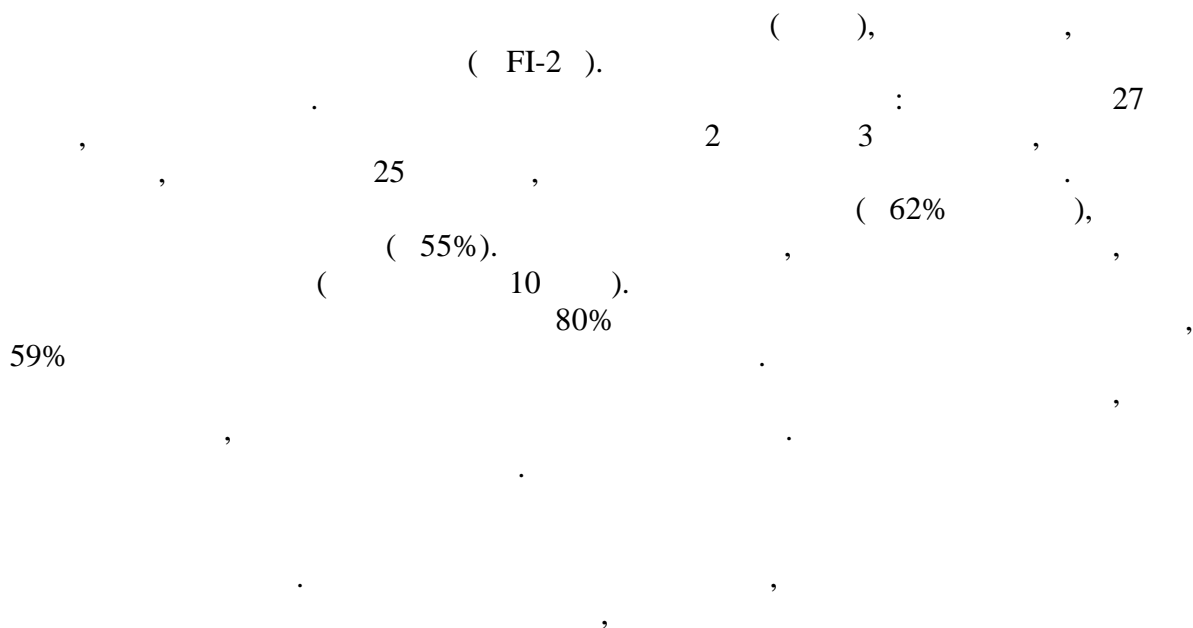
RESULTS: Recently we informed about some tobacco smoke substances that are not toxic themselves but can exacerbate lung tuberculosis because of their ability to be used as metabolites or metabolic fuels by Mycobacterium Tuberculosis cells (Zagoskina I.P., Zagoskin P.P., Shprikov A.S., Baku, Azerbaijan, 2015). Here we suppose that some EC liquid aerosol components can induce similar negative effects in the respiratory tract epithelial cells of EC smokers. In our opinion the substances are the following:

- glycerol,
  - propylene glycol (PG),
  - ethanol,
  - sugars,
  - benzoic acid
  - aldehydes and ketones - the byproducts of high temperature decomposition of above substances (formaldehyde, acetaldehyde, 5-hydroxymethylfurfural, furfural, benzaldehyde and acetone).
- Glycerol and ethanol can be used by most of bacterial species as metabolic fuel and provoke the growth and proliferation of the bacteria cells. Chronic inflammation of the oral cavity, larynx, throat, bronchi and lung is then developed in long-term exposure EC vapor. Pro-inflammatory cytokine production (e.g., IL-6) is elevated in these persons. Besides that, formaldehyde, acetaldehyde, benzaldehyde and other aldehydes can directly induce persistent dry cough, wheeze, phlegm and other irritative phenomena in EC smokers.

CONCLUSIONS: The research of chemical composition of various EC-liquids revealed some components that are potential metabolic fuel or necessary metabolites for probable infection agents. This allowed us to make the assumption that some side effects of EC smoking are caused by not only immediate irritation of RT cells but also by inflammation induced by bacteria that use some components of EC liquid aerosol as metabolic fuel or necessary metabolites.

« . . . » . . . - ( ) 2016 . 100%, - ( ) . (34,26%) , (20,37%) - . ( , ) (129 (67 , 62 ) , 36,6±3,6 , 15,34±4,3 ) . ; ; , . ( ) . . . , 2003 . - 3.2-3.3 ( 3.1-3.2 - ; 3.2-3.3 - (37%), (13%), -





### **COMPARATIVE EVALUATION OF DETECTION OF HPV IN URINE AND SMEARS FROM THE CERVICAL CANAL**

Lokteva L.M., Sharapov S.M., Perepada K.A., Alieva L.E., Latipov R.R., Sharipova I.P.  
*Research Institute of Virology, Ministry of Health, Tashkent, Uzbekistan*

The high incidence of sexually transmitted infections in the population attracts the attention of specialists from all countries due to the frequent development of complications leading to a disruption in the function of the reproductive system. Human papillomavirus (HPV) is a group of extremely common and genetically dissimilar DNA-containing viruses that affect the epithelium of the skin and mucous membranes.

The definition of HPV in the material from the cervical canal has the same negative aspects as the routine methods of cytology, which limits its use in screening programs. This method is also invasive, requires special expenses and trained personnel. Detection of HPV in the urine is a more accessible method. It can also be used for post vaccinal screening, especially when a vaginal examination is not available.

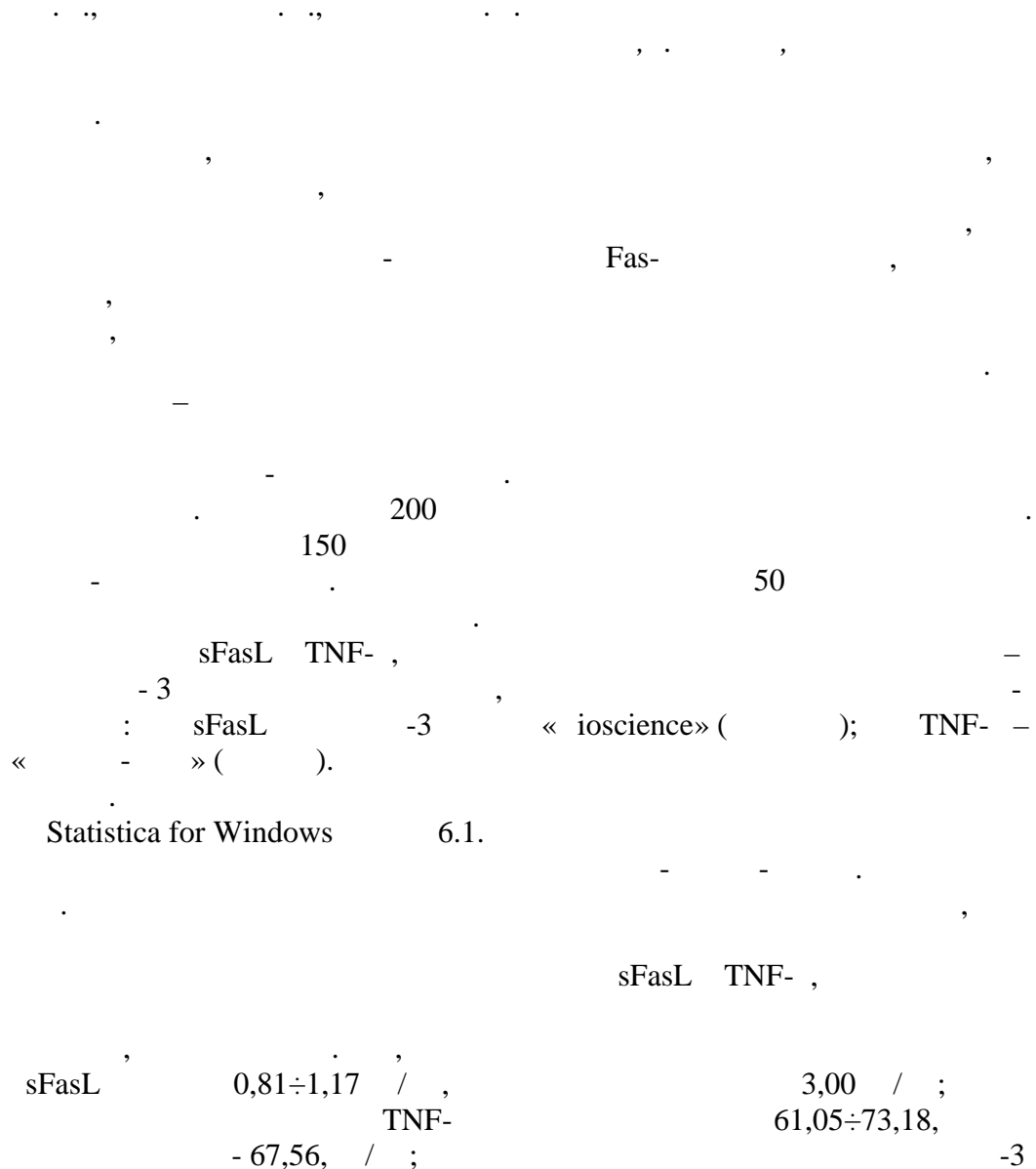
The aim: Is a comparative evaluation of the effectiveness of HPV detection in the urine and in a swab from the cervical canal..

Materials and methods of research. To perform the tasks, we examined 96 women from 21 to 45 years of age, of whom women with suspected HPV 51, and a group of healthy women accounted for 45 patients. Clinical research was carried out on the basis of a polyclinic at the Research Institute of Virology of the Ministry of Health of the Republic of Uzbekistan. The clinical material we obtained was examined by screening for the presence of HPV in the cervical canal and in the urine by polymerase chain reaction (PCR). Statistical processing of the results was carried out using the SPSS 11.5 software package using descriptive statistics methods.

Results and discussion. The results of the study showed that the detection rate of human papillomavirus among people under the age of 20 is 17 (33.3%) women, and decreases with age. Up to 30 years, the incidence of human papillomavirus in our patients was 16 (31.37%). Among those over the age of 30, the detection rate of the most dangerous types of HPV is significantly

lower in comparison with the younger age groups 13 (25.49%) (P <0, 001). In 5 women over 40 years, the detection rate of the most dangerous types of HPV is significantly lower - 9.8% (P <0, 001). The results of the study showed that in women with HPV-positive samples in the smear, HPV-positive samples were simultaneously recorded in the urine. The advantage of this approach, i.e. The independence of the first screening procedure from the presence of inflammation (as opposed to cytology), so the determination of belonging to a risk group can be carried out in all cases already at the initial treatment of a woman when it is necessary to pass a simple morning urine for the presence of HPV.

Conclusions. It was found that the frequency of HPV-positive samples among women with suspected HPV was 84.31%, compared with the group of healthy women, where the incidence of HPV-positive samples was 15.55%. It was revealed that in women with HPV-positive samples in the smear, HPV-positive samples were simultaneously recorded in the urine. To recommend to patients with suspicion on HPV already at the primary reference, to hand over simply morning urine on presence of HPV.





4,51÷7,40 / , - 6,04 / .  
sFasL 0÷0,40 / ,  
- 0; TNF- 28,09 ÷  
42,38 / , - 34,56 / ;  
- 1,64 / .  
1,47÷7,40 / ,  
, ,  
, .  
, 56%  
, 30%  
, 26% - .  
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- .  
. . . . .  
« , , , , , »  
: -  
. : 2011 .  
2016 ., - 1280  
( ), 429 (34,3 %)  
, 233 (54,3 %), 196 (45,7  
%).  
( )  
«Somatom Definition AS 64»,  
0,6 . ,  
-  
hio tandem, 1-2 / .  
- .  
«SingoVia»,  
: 429  
, 359 (83,7 %),  
: 171 (47,6 %) -  
; 151 (42 %) - ; 28  
(7,8 %) - ; 13 (3,6 %) -  
. 152 (42,3 %)  
: - 139 (32,4 %),  
- 180 (42 %), - 105 (24,5 %),



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«SomatomDefinitionAS64», «Siemens», 0,6 .

«ULRICH», 1-2 / . hiotandem, 53

III), 5 (9.4%) (32,07%) , 6 1 - 5 (9,43%) , 1 6 - 17 (3,77%)

AVSD - 13 (24.52%) - 14 (26,41%), 17 (32.07%)

36 (67.92%).

45 , 19 (35.84%) -

14,2% - 15%, - 0,6%, - 10%, - 2,5%



: - ,  
 : .  
 , (37 38 ) 3 7 (5,3±1,23 ), 75  
 ) 7 10 (8,1±2,14 ), 83 (40 43  
 . 82 3 7 (5,1±1,11 )  
 94 (7,9±2,03 ) .  
 :  
 / , 9,0 / (RfD 1,6 / ). 25-50% ( 1,1 3,14 , 49,5 - 141,3  
 , 2.1.4.1074-01. ( 2,4 ),  
 1,7-2,1 .  
 2,3 , ( R=2,35; DI=1,22-4,53;  
 =0,016). ,  
 ( : E44.1-E46)  
 (R2 = 0,42 - 0,75; 64,9 F 162,3, =0,001).  
 ,  
 - ( : E44.1-E46)  
 ( 6 ) ,  
 (6-10 ) ,  
 ( : 66.0- 67.8). ,  
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140 « - ».

n=31, 22,14%) (53,21%) - 18 (58,6%), (p>0,05).

(I, n=109, 77,86%) - 51 (46,79%) 58 (41,96%), (p>0,05)

(72,86%, n=102).

48,57% (n=68), 51,42% (n=72).

MOS SF-36

( ; p = 0,01),

( ; p = 0,002),

(p>0,05).

(p=0,05).

« » . . . . . » . . . . .

( ) .

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« » « » ( ).

50 -

(31 ) - 26-45 ; (7 ) - 20-25 ;

(20 ) - 10 ; (17 ) - 3 ;

(13 ) - 30 ;

35,7±5; - 9,9±10

20-25 (189,0±44,9) , 3 (76,9±20,0) 2,5

(p=0,018). RMSSD RMSSD



pNN50

20-25 (37,4±8,8)

0,48 20-25 (16,8±4,0) ( 0,01).  
26-45 (49,7±3,1),

46 AMoSDNN, SDNN ( 0,01).  
46 26-45

20-25 (5,1±3,3<sup>2</sup>)

(t=2,7 p 0,01). (HF)

(t=2,2 p 0,03)

(t=3,1 p 0,007), ULF

SI (t=-2,3 p=0,027).

2,3

*FUCOIDAN WORLD,*

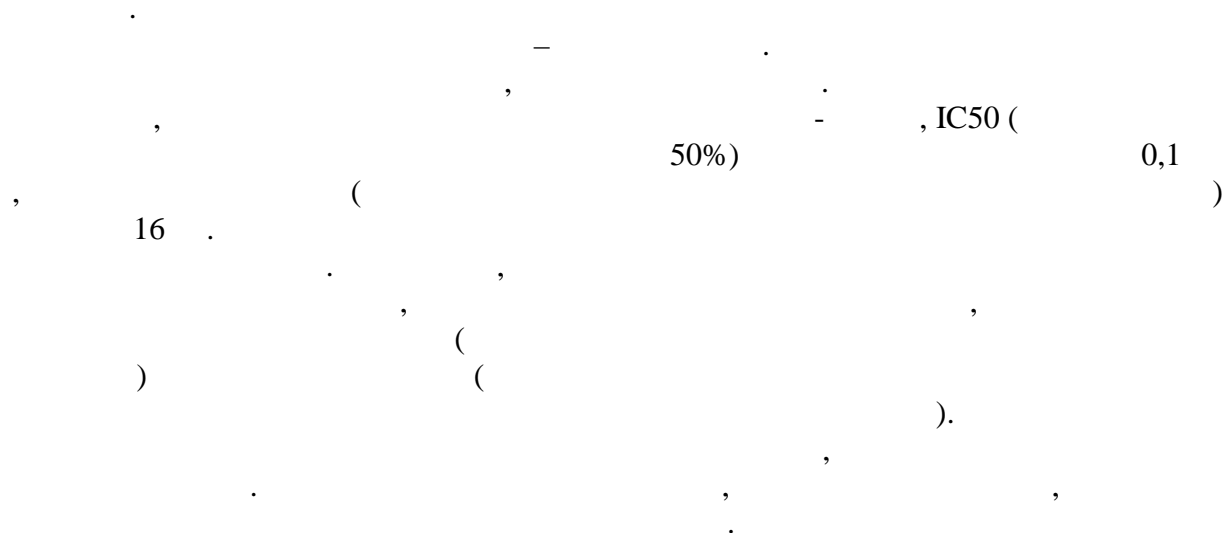
« »

60%  
60%

43%

2020

2002  
73%



### **THE RELATIONSHIP QUALITY OF LIFE (SF-36) BETWEEN URBAN AND RURAL POPULATION OF THE TURKESTAN REGION (KAZAKHSTAN)**

Saruarov Y.G., Nuskabayeva G.O., Shalkharova Zh.S., Shalkarova Zh.N.

*International kazakh-turkish university by named Kh.A.Yasawi, Medical faculty, Turkestan, Kazakhstan*

**Background:** In nowadays, the determining quality of life within the framework of behavioral risk factors is becoming an urgent problem of global health. This situation stems from the fact that the concept of “health” should not be taken unilaterally. Since together with this concept, we must take into account many factors such as favorable or adverse environmental effects and the ability to maintain health at a certain level. At the same time, one of the main problems of modern society is to study the quality of life and the opportunity to receive full-fledged medical services, depending on the place of residence of the urban and rural population.

**Materials and methods.** Design of the study – cross-sectional. The sample type – pre-planned non-probability sampling. The study involved 972 residents (mean age –  $51,9 \pm 13,7$ ) Turkestan, South of Kazakhstan. Including 398 men (mean age –  $50,1 \pm 13,7$ ) and 574 women (mean age –  $52,1 \pm 13,7$ ). Of these, 571 - the inhabitants of the city (Turkestan) and 401 - the inhabitants of the villages (Karashyk, Kumtyuin etc.). Each study participant signed the papers of agreement to participate in the study. In this study we used for determine the quality of life– SF-36 (The Short Form-36).

**Results and discussion.** The study revealed significant differences in quality of life (SF-36) between inhabitants of Turkestan region ( $n=972$ ), depending on the place of residence (urban or rural). The statistical significance of the relationship of quality of life (SF=36) between urban and rural residents of the Turkestan region ( $n=972$ ) on a scale of Mental Health (MH) corresponded with 95% CI ( $p=0,012$ ). In the other scales of SF-36 did not reveal 95% CI: Physical Functioning (PF) -  $p=0,216$ ; Role-Physical Functioning (RP) -  $p=0,593$ ; Bodily pain (BP) -  $p=0,862$ ; General Health (GH) -  $p=0,089$ ; Vitality (VT) -  $p=0,294$ ; Social Functioning (SF) -  $p=0,078$ ; Role-Emotional (RE) -  $p=0,830$ . In the study Mu H. and co-authors (China) was revealed the level of assessment of quality of life between urban and rural populations. As a result of research at the scale of General Health (GH) on the urban and rural residents was the same. However, indicators of scales Vitality (VT) and Mental Health (MH) in rural areas, compared to urban, were lower. Living conditions in rural areas families have led to an increase in their quality of life.

Conclusion: In the 95% CI the statistical significance of the relationship of quality of life (SF-36) between the urban and rural population on a scale of Mental Health (MH) was corresponded; although, in the other scales such changes are not detected.

Key words: quality of life, SF-36, urban population, rural population, Kazakhstan.

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" " "

10 (19 ) (25 ).

12 ( , 1974).  
Biostat 6.0.

(Aki A., Nihei Y.,2008).

( 59%),  
(1,75± 0,04 . / .).

(1,75± 0,04 . / .):

-38 % (1,09±0,09); -30 % (1,22±0,07); -34 % (1,15±0,06);

-30 % (1,22±0,02).

( 59%) (0,72±0,12). 2

- 51% (0,90±0,05 . / .),  
-37% (1,06±0,06 . / .).

( , 2007 ),

“ ” (Caraceni et al, 1997).

( 50% ),

15%,

*FUCOIDAN WORLD,*

in vitro

in vivo

( PubMed)

3-4

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;8)

«...», ...  
 «...», ...  
 2002 ... 14 ... 100  
 ( ) ...  
 ( ... , 2008 ).  
 ( ) .  
 2011 ). ( ) ( ... ,  
 ( )  
 6 17 .  
 2015 2017 . «...»  
 PillCam SB 44  
 6 17 ( = 13,2 ), 23 21  
 : I - (6-10 , N=9), II  
 - (11-14 , N=19) III - (15-17 , N=16)  
 ( )  
 125 608 ( = 5 1 ).  
 = 36 ( 2 298 ).  
 ( I : II :  
 III = 80 : 33 : 30 ),  
 ( ( ): ( ) = 30 : 47 ).  
 4 17 ( 58 593 ).  
 (I: II: III = 189: 251: 309 ),  
 ( : = 296 : 210 ).













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1. , ,

2. « - », , , ,

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2016 . - 1214 - 18 75

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( , ) , .

134 (11%)	+	+
401 (33%)	+	-
72 (6%)	-	+
607 (50%)	-	-
55 (5%)	+	-
6 (0,5%)	-	+
546 (45%)	-	-

, . 56% (679 )

83% (1008 ) -

5% . 55% 11%

- 1. « - »
- 2. 6,5% -
- 3. -
- 4. -
- 5. -

( , ).

114 :  
 2011-2015

60 (56,8 %),

30 50

30 (78%),

25 (23,7%)

20 (15,3%) 40 50 (48%).

50 5 (83,3%) 40 50 12 (55%)

- 1. (56,8%). 30
- 2. 50 (23,7 %) ( 40 50 ).

3. (15,3%)

4. 50 60 (83,3%).  
5.

1. « » 2016-2020

. URL: <http://www.mzsr.gov.kz/>

. URL: <http://www.zdravkrk.kz/>

3. ,2008.– 334 .

4. , 2005. – 47 .

« » , » , .

7 12 , 43

« » FACSCalibur, IgG 43

- Agilent 7500 4.1.3230–14.

« 2006. ICP MS». 480-

(R<sup>2</sup>). <0,05.

3,3 2,6 1,8

(p<0,05) CD95 100,0% 1,7 (p<0,05) CD95+

(R<sup>2</sup>=0,624). - 48,8%

(p<0,05)  
(R<sup>2</sup>=0,692).

57%

IgG.  
1,7

CD95+,

1,7

IgG

[1,2].

[3,4].

5 50 250

UltraPro,

-7 , II - 14 , III - 21 , IV - 30 , V - 90

: I

7, 14, 21 30 . 7

7

- 1 . . . - // . - 2006. - 10. - . 26-27.
- 2 . . . , 1990. - . 35-39. // :
- 3 . . . , 1985. - 240 . . - .:
- 4 .// . . . - 2002. - . 161, 1. - . 99-102. / . .

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80%

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 (MSB Lendrum, 1962).  
 5- ,  
 ( 1,75 ) 21- ;  
 ( 35 ) - 1,9  
 . 21  
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 - . 5- ' 7- 14-  
 . 21-  
 . 28- , , , - . 35-  
 5 , , .  
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**KIM-1**

K M -1 (Kidney Injury Molekule-1),

K M-1

72

3 : 1 I, II III 36 , 1 -20, 1 - 16  
28 ,  
, 30- 50 ( 20

( <0,05), III 1-3- (1 K M-1 I 1,06±0,08  
) 1,18±0,10 ( <0,05),  
( 7-10 ) K M-1  
1 0,98±0,09 / , 4 II III  
( 1 1 )  
1,24±0,10 1,36±0,12 / ( <0,05)  
( 1-3-5 KI -1 0,68 /

7-10

: KIM-1,



»

«

» ( 1 )

«Valve-in-valve» (« - - »)

( )

2014 2016 70

12

50,1±2,4 ( 45 65 ). 3,1±0,4 NYHA.

« » (n=8), « » (n=3)

« » (n=1).

9,3±1,2

,

( 1)

« » 28 ( 2) -

« » 27

96±10 1 90±11 - 90±12

2,

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12 24

2,1±0,2. 1,4±0,5 , 6, 2,5

, « » -

8,3 % (1 ). - 3

( ) 3,9±0,6 . .,

( ) - 2,3±0,5 2

( 2) 5,9±1,9 . .,

- 108,7±2,2 / ., - 2,6±0,3 2.

«Valve-in-valve»

1,2, 1, 1,2, 1

1 « -

2 »

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»

137 - 31

(HI)

1,21. (HI=1,29).

( 92,0%, 1,07HQ).

1,28 HI.

( 62,38%, 0,94HQ).

3,78.

1,4-2,0

2,2

41,1%

/ 1,

(0,51±0,03 / 3 0,43±0,06 / 3, =0,04),

1,2 1 (1,4±0,07 / 3) 49,5%

18,3% 38,2% 1,2 4 4

1,16

1,2-1,7

47,8%

1,2

1

... .. , ,

— 1

-IL-1 IL-1 RA 23  
( ) 1

15

IL-1

IL-1RA

1  
2- IL-1  
5,1±0,6 81,1±6,6 /  
2,55±0,68 104,5±2,0 /

IL-1

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IL-1RA

IL-1

IL-1RA

IL-1

1

IL-1RA

IL-1RA/IL-1 43,98±2,9,  
1 15,9±2,4,

IL-1B

1 6

IL-1RA,

1 3

1 3

1RA

58,4 135,5 / ,

95,1±0,8 / IL-

IL-1RA

84,0±1,0 / 1 6

IL-1RA,

1

« » ,  
 :  
 ( ) ,  
 : 2006 2016 . 368  
 : 60  
 De Vega ( 1), -  
 29  
 « » ( 2), 279  
 « » ,  
 ( 3).  
 51,4±8,6 .  
 , Ro  
 3,1±0,2. 69% (n=254)  
 ( ). 56,7 ± 11,8%.  
 II 20% (n=74), III - 41% (n=151), IV - 39%  
 (n=143) ( ) - 51,8±4,3 . . .  
 : 2,2% (n=6).  
 II 1  
 8,3%, 2 - 10,4%, 3 - 2,2% . 3  
 1 2 8,2±3,1 . . . 40% 1 2  
 46% 3 . 90%.  
 - 10 , - 5,5 .  
 18,3%, 24% 11,7% . 3 98,7%  
 , 2 -  
 88,3%.  
 35,7%.  
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«Excell».

(the third methodological movement).

(2014) –

SWOT –

18





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20-30  
 90-  
 20-50  
 XX-  
 XXI  
 3-5

1959 – 2015

1959 – 2015

(“Standard “World”),  
MS EXCEL 2010.

1959 – 2015

60-

2005

1.06

1985  
10.97%

10.31%

1.30

29 (1985 – 2005 )  
1.2

2011

2.17

1.5 1962

6

1.7

1962 – 2011 (49 )  
1.8

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1959 – 2015

50- –

60-



60-

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»  
, - - ,  
( ),  
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127  
49,6±14,3  
:

	(n = 127)
	127 (100%)
	16 (12,6%)
	19 (15%)
	4 (3,1%)
	1 (0,8%)

104 , - 23.  
Granderrath . (2007), 39  
(37,5%) , - 58 (55,8%), - 7 (6,7%),  
- 16 (69,6%) , 7 (30,4%) -  
. 127  
;  
;  
13 (10,2%) , 6  
, 2  
- 5,3 ± 0,6. , 4 (3,1%)  
« »,  
. 19

**NOS3, CYP2C19, ITGB3, P2RY12**

( ),

*CYP2C19*, T1565C : *ITGB3*, H1/H2 *P2RY12* T-786C *NOS3*, G681A

( 242 6 )

58,1 ± 8,5 ( + )

(0,2 ) ( 2,5 5,0 )

SNP-express ( , )

- 2

< 0,05.

(p = 0,044): III. -786TT T-786C *NOS3* -786CC I

-786CC 2,5 (p=0,047) 681A (p = 0,033). -786C

(p=0,008).

(p = 0,022 p = 0,021) *P2RY12* *ITGB3* G681A *CYP2C19*

T-786C *NOS3* c

681A

*CYP2C19*.

... « » ... [1].

... [2].

9 , 26 ,

«I-K» ( - ) : a, b, c, d,

( . 1,2). ( ) ( )

( ) 7,4%, ( ) 4,7% ( <0.10). ( ) (Lr) 23%.

17%, 67%, 82% (P<0.05). (Lr) 13%, 4%.

(Lr) , A 4-5 , 5- B

5-  
C  
1.

... // . - 2003. - N 11. - .32-38.

2.

... // . - 2014. - 1. - .142-144.

3.

// : VI : , 2005. – . 301-302.

2025 »  
2016-2020 .

2016-2025 .

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( / ),

, SWOT –

2016-2025 .  
) : 1) 2020

; 2) 2025  
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(<50 100 .

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« ( / ) » - 2 6  
100 / 0,1

0,1 / 100 / « » - ( ) 2 6  
2 6 / 0,1 . « » .

(Tyr - D-Ala - Gly - Phe -  
Leu - Arg) - -/μ- δ-  
(Phe - D-Ala - Gly - Phe - Leu - Arg) Tyr [

. . . , 2004].  
- 60- ,

AgNOR [ . . . , 1990].  
« - » ,  
;

,  
8,45%  
75,95% « » ,

35,5%, 29,7%,  
28,5%.

: 1) -  
; 2)



« »

(Campoy et al., 2016).

19

10

Hestrin (1949).  
Biostat 4.3.

2.5-2.7

22%.

( 29%)

### **MORPHOMETRIC PARAMETERS OF RENAL CALYCES OF CHILDREN OF THE AGE OF THE FIRST CHILDHOOD**

Padalitsa . . .

*Department of operative surgery and topographic anatomy, Kharkiv national medical university, Kharkiv, Ukraine*

In this study, the anatomy features of kidney and pyelocalyceal complex of children in the age of the first childhood were studied. A total of 23 isolated organs of this age group without congenital anomalies or pathology of the uronephrologic profile were studied. To the age group of the first childhood period, according to the classification according to LK Semenova, children aged 4 to 7 years were included; in the study group, the mean age was  $5.3 \pm 0.5$  years, and the age interval was 4.5-6.5 years.

As a result of the study of the linear parameters, as well as the volumes of calyces of children aged 4-7 years, the following generalizations can be made:

- in children 4-7 years of age, the upper (S) and lower (I) renal calyces are permanent structural components of the pyelocalyceal complex, whereas the anterior and posterior calyces are absent at different frequencies;
- in children 4-7 years of age, a relatively larger volume of anterior middle (VA2) and posterior middle (VP2) renal calyces is retained;
- in children 4-7 years of age, the posterior kidney calyces (P1, P2, P3) are characterized by greater heterogeneity than anterior ones; this is manifested more frequently by the absence of posterior upper (GF3 = 0.500) and posterior lower renal calyces (GF1 = 0.280), less often by the posterior middle (GP2 = 0.170) renal calyx;
- the diameter of the arch of the posterior renal calyx varies, height of renal calyx does not exceed the diameter of arch, and the size of its cervix does not differ from the size of cervix of anterior renal calyx.

Morphometric analysis of the volume of renal calyces of children aged 4-7 years old also allows us to conclude that there are two groups of renal calyces classified according to volume. The biggest volume has the upper renal calyx ( $VS=1570.3\pm 416.1$  mm<sup>3</sup>), from which only volume of the lower renal calyx ( $VI = 1038.0 \pm 229.7$  mm<sup>3</sup>) does not differ ( $p > 0.05$ ). At the same time, the volumes of the anterior (A1, A2, A3) and posterior (P1, P2, P3) renal calyces significantly ( $p < 0.05$ ) differ from the upper one. In the analyzed age group, the volume of the lower renal calyx ( $p < 0.05$ ) for the first time (from the moment of birth) predominates over the volumes of the lower (A1, P1) and upper (A3, P3) ones. Thus, in 4-7 year old children, the upper (S) and lower (I) renal calyces can be included in the group of "large" kidney calyces; and the second group is represented by the remaining kidney calyces.

The specific gravity of the volumes of particular calyces in the total volume of the pyelocalyceal complex is the following (in descending order): the upper renal calyx -  $32.4\pm 4.3\%$ , the lower renal calyx -  $21.3\pm 4.8\%$ , the posterior middle renal calyx -  $15.3\pm 2.2\%$ , the anterior middle renal calyx -  $12.9\pm 2.9\%$ . The correlation analysis between the volume of particular calyces and the total volume of the pyelocalyceal complex of children aged 4-7 years revealed a direct medium-strength relationship between the total volume of the pyelocalyceal complex and the volume of the posterior lower renal calyx (VP3;  $rRC = + 0.47$ ).

Thus, the upper renal calyx is the largest anatomical formation in the structure of pyelocalyceal complex in children of 4-7 years and is supplemented with one more - the lower one. Medium-strength direct correlation between the total volume of the pyelocalyceal complex and the volume of the posterior lower renal calyx is established.

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(Andreassi M.G. et. al 2015)  
El Assar M et.al 2013.

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## **THE USE OF INFLIXIMAB IN PREGNANT WOMAN WITH COGAN'S SYNDROME**

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**Introduction:** Cogan's syndrome is a rare chronic inflammatory disorder of unknown etiology characterized by ocular inflammation and vestibuloauditory symptoms. We report the first diagnosis of Cogan's syndrome in Ukraine.

**Case description:** In February 2015, a 25-year-old woman, previously healthy, noted weakness, headache, fever and unilateral left-ear tinnitus over a 1-week period. She did not appeal to the medical care and received Acetaminophen and Rimantadine without a doctor's prescription. In April 2015 she had a sudden onset of dizziness, vertigo, weakness, nausea, vomiting, ataxia and tinnitus in the left ear. Laboratory tests showed normal complete blood count, erythrocyte sedimentation rate and C-reactive protein. Cerebral computed tomography, rheoencephalography, head and neck ultrasonography were normal. Audiometry showed bilateral sensorineural hearing loss. An otolaryngologist diagnosed acute labyrinthitis of viral etiology and started her with 16 mg of Dexamethasone intravenously, Furosemide and Ondansetron orally. There was an improvement in the audiogram, but tinnitus of the left ear still remained. Half a year later, intensity of the left ear tinnitus had increased. Otolaryngologist suspected Meniere's disease, but due to a normal audiometry recommended only observation. 4 months later the patient noted the sudden onset of erythema, tearing and foreign body sensation in the left eye. Local antibiotics and corticosteroids were taken without consulting a doctor. Clinical manifestation of ocular inflammation disappeared, but tinnitus in the left ear increased. Audiometry was normal. At two weeks later, she had a second episode of the same eye lesion. Local Diclofenac was started. Relapse of acute labyrinthitis of the left ear was noticed the next day. Audiometry showed bilateral sensorineural hearing loss. An otolaryngologist prescribed 16 mg Dexamethasone intramuscularly. 2 weeks later, when the dose of Dexamethasone was 4 mg, the patient had a third onset of inflammation of the left eye. An ophthalmologist diagnosed the left-sided ulcerative interstitial keratitis, possibly with herpes viral etiology, and prescribed local Ganciclovir and Interferon. After several days, the patient's condition worsened. Bilateral tinnitus and sudden hearing loss with vertigo and vomiting had already appeared. The patient was hospitalized in the otolaryngology department and consultation with a rheumatologist was recommended. Magnetic resonance imaging of the inner ears, echocardiography, and chest computed tomography with contrast had no pathological changes. Antinuclear antibodies, anti-ds-DNA, anti-glomerular basement membrane antibody, antibody to proteinase-3, myeloperoxidase, and rheumatoid factor were negative. Serological tests for Syphilis, Borreliosis, Hepatitis, HIV, and Herpesvirus were within normal ranges. An audiogram confirmed the presence of severe bilateral sensorineural hearing loss. According to the findings, a rheumatologist diagnosed Cogan's syndrome. Steroid puls therapy with 125 mg of Methylprednisolone was started. After three days of puls therapy, 64 mg of Methylprednisolone daily was started which was then switched to Prednisolone (60 mg max) with gradual dose reduction to a maintenance dose (min 5 mg per day) after audiometry improvement. 10 mg of Methotrexate weekly and Infliximab (5 mg/kg) were also prescribed. During treatment the patient noted constant nausea. A pregnancy test was negative, but after light vaginal spotting of blood she exposed a transvaginal ultrasound which showed 10 weeks of pregnancy. Therapy was corrected immediately due to the 2016 EULAR points to consider for use of antirheumatic drugs



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