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# FUNCTIONAL-VEGETATIVE DIAGNOSTICS AS A BIOPHYSICAL ISSUE

(INFORMATION 5)

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These materials are unparalleled and is the intellectual property of developers towards "functional-vegetative di-agnosis without using external power sources" (Makaz VG, Makaz E.F, Makaz Dm.V., Makaz Den.C.). Considered its biophysical characteristics and objectivity in assessing the effectiveness of rehabilitation. Keywords: Acupuncture therapy, functional diagnostics autonomic, vegetative homeostasis, functional rehabilitation.

Наведені матеріали не мають аналогів і є інтелектуальною власністю розробників напрямку "Функціонально-вегетативна діагностика без використання зовнішніх джерел струму" (Макац В.Г., Макац Є. Ф., Макац Дм.В., Макац Ден.В.). Розглянуті її біофізичні особливості і об'єктивність при оцінці реабілітаційної ефективності.

Ключові слова: Чжень-цзю терапія, функціонально-вегетативна діагностика, вегетативний гомеостаз, функціональна реабілітація.

Приведенные материалы не имеют аналогов и является интеллектуальной собственностью разработ-чиков направлении "Функционально-вегетативная диагностика без использования внешних источников тока" (Макац В.Г., Макац Е.Ф., Макац Дм.В., Макац Дэн.В.). Рассмотрены её биофизические особенности и объективность при оценке реабилитационной эффективности. Ключевые слова: Чжень-цзю терапия, функционально-вегетативная диагностика, вегетативный гомеостаз,

функциональная реабилитация.

#### Introduction

Continuing the theme, consider the regulatory framework of functional vegetative diagnosis by the method of Professor V.G.Makats. At the same time pay attention to its originality and lack analogues in the world.

#### **1.NORMATIVE FIGURES OF THE SCHOOL AGE (K-VR = 0,94-1,05)**

The experimental group included102 children of 3-6 years of age (57 girls, 45 boys). All children demonstrated k-VE 0,95-1,05 (zone of vegetative equilibrium). In the female group (tabl.1.1, fig. 1.1) and the male group ((tabl.1.2, fig.1.1) the normative analysis testifies to non-standard character of functional-vegetative dependency within the margins of physiological norm.

The basic criterion of functional health of the children of the pre-school age is the coefficient of vegetative equilibrium (k-VE), which points to the satisfactory (or poor) correlation "sympathetic-parasympathetic activity". Its deviation to the left from the zone of norm (less than 0,95) points to the corresponding sympathetic orientation, while deviation to the right (more than 1,05) – points to the parasympathetic activity.

However, there is a principle question: can the normative diagram be stable during the assessment of the dynamic activity of functional-vegetative homeostasis in children of the pre-school age? The answer is No!

The systemic correlation depends on every minute functional needs of biological system and, by nature, cannot be stable.

Table 1.1

The norms of FVD for children of female group of the pre-school age through ages (<u>Note:</u> M – average data of mixed age female group (57 children).

AGE		F	UNCTI	ONAL-	VEGET	TATIVE	SYSTI	EMS (A	CTIVIT	TY IN %	5)	
AGE	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST

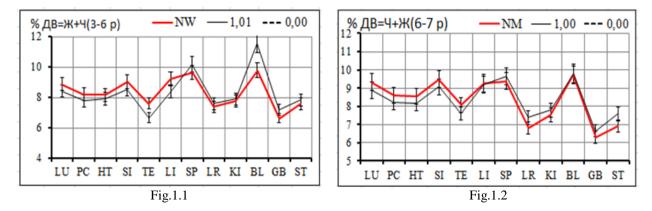
3 p	8,12	8,64	7,99	9,32	8,09	8,09	9,60	7,42	8,41	9,71	7,37	7,25
4 p	9,73	8,25	8,58	8,36	7,54	10,4	8,82	7,29	7,43	8,82	6,31	8,43
(5 p	9,64	8,26	8,39	9,70	8,13	10,4	9,55	7,19	7,29	8,56	5,59	7,27
6 p	8,43	7,77	7,92	8,53	6,67	8,39	10,2	7,60	7,90	11,6	7,20	7,83
М	8,89	8,21	8,17	9,06	7,60	9,21	9,65	7,38	7,79	9,80	6,64	7,59

Table 1.2

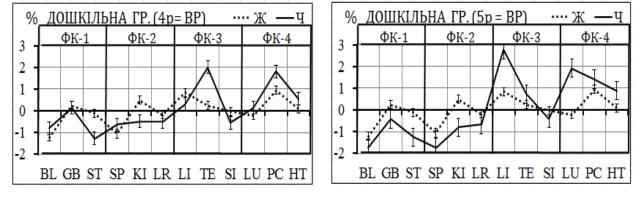
The norms of FVD for children of male group of the <u>pre-school age</u> through ages (<u>Note:</u> M – average data of mixed age male group (45 children)

AGE		F	UNCTI	ONAL-	VEGET	ATIVE	SYSTE	EMS (A	CTIVIT	Y IN %	)	
AUL	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST
3 p	11,3	12,7	11,3	14,1	14,1	11,3	5,63	5,63	2,82	5,63	1,41	4,23
4 p	8,19	8,88	8,16	8,24	8,55	7,92	9,94	7,07	8,15	10,3	7,57	7,03
5 p	10,2	8,71	8,86	9,20	8,03	10,8	8,59	6,58	7,32	9,00	6,19	6,53
6 p	9,23	8,20	8,38	10,2	7,53	8,82	9,85	6,89	7,59	10,2	5,91	7,27
Μ	9,33	8,62	8,54	9,48	8,08	9,27	9,38	6,81	7,54	9,74	6,30	6,91

Comparison of diagrams of female (fig. 1.1) and male (fig. 1.2) groups has not allowed to detect valid gender-age peculiarities within the zone of the norm.



Dynamically stable remains only the level of vegetative equilibrium: correlation of sympathetic and parasympathetic (*YANG-YIN*) activity, which is reflected in the coefficient of vegetative equilibrium ( $\mathbf{k=VE}$ ). This is testified by the diagrams of the normative indices under  $\mathbf{k=1}$  through separate ages of life of children of pre-school age (fig. 1.3) and their relation to the zone of systemic functional norm (0-zone).



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Fig.1.3 Correlation of systemic dependency in female and male pre-school groups under vegetative equilibrium (k=1).

## Conclusion

1. In the pre-school age observations, functional-vegetative diagrams through separate ages do not significantly differ from the deduced average norms. The outlined deviations within the frames of functional norm do not practically influence the vegetative transformation, which allows the usage of the represented statistically average norms.

2. At the same time, it should be remembered that the coefficient of vegetative equilibrium (k=VE) is the only indicator that holds the diagnostic value, and systemic functional correction should be performed under its control.

#### 2. REGULATORY CHART PRIMARY SCHOOL AGE (K-VB = 0,94-1,05)...

For the 4.464 regulatory analysis of selected primary school children. Of these, 2.312 children made up the female group, 2.152 children - male. A common feature of both groups was the state of the initial vegetative balance (k-VB = 0.95-1.05)...

Table 2.1

AGE		F	UNCTI	ONAL-	VEGET	ATIVE	SYSTE	EMS (A	CTIVIT	Y IN %	)	
AGE	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST
7 p	7,35	7,31	7,34	8,06	7,15	7,89	10,8	8,09	9,18	11,2	7,28	8,32
8 p	7,80	7,02	7,23	9,04	6,58	7,68	10,8	8,11	9,08	10,8	7,50	8,54
9 p	8,33	7,06	7,37	10,4	6,33	7,69	11,2	7,51	8,47	11,6	6,12	7,80
10 p	8,35	7,52	7,78	9,44	6,91	7,92	11,8	7,06	7,49	11,9	6,37	7,41
11 p	8,11	7,07	8,11	9,30	6,66	7,55	12,4	6,57	8,07	12,4	6,23	7,39
М	8,10	7,21	7,62	9,43	6,69	7,74	11,5	7,34	8,28	11,7	6,58	7,78

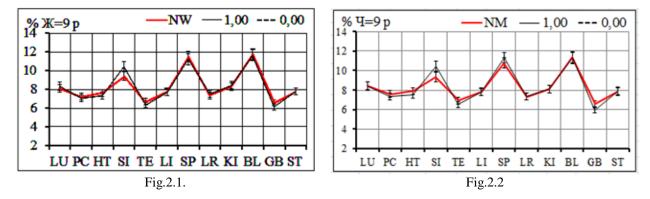
FVD ratios in female children of primary school age years to life (7-11 years). <u>Note</u>: *M* - medium mixed data on female age group (581 children.

Table 2.2

The norms of FVD in male children of the junior school age (fig. 1.12.2) through the ages. <u>Note</u>: M – average data of mixed by age male group (539 children).

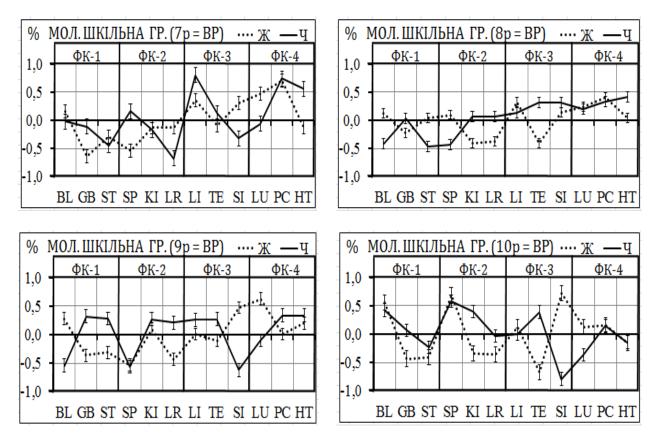
AGE		F	UNCTI	ONAL-	VEGET	<b>TATIVE</b>	SYSTE	EMS (A	CTIVIT	Y IN %	)	
AUL	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST
7 p	8,50	7,93	7,87	8,31	6,85	7,94	9,99	7,44	8,32	10,6	7,79	8,50
8 p	7,76	7,30	7,71	9,28	6,48	7,45	10,6	7,95	8,69	11,0	7,40	8,36
9 p	8,41	7,38	7,53	10,5	6,52	7,79	11,3	7,36	8,13	11,3	5,92	7,89
10 p	8,70	8,08	8,19	9,31	7,37	8,35	10,9	6,73	7,52	11,6	6,02	7,18
11 p	8,77	7,45	8,04	8,96	7,14	7,75	10,6	7,37	7,95	11,7	6,59	7,69
М	8,47	7,61	7,88	9,35	6,91	7,86	10,7	7,33	8,06	11,3	6,60	7,83

In junior school age, the norms of separate years of age do not substantially differ from the statistical average indices for the age group of 7-11 years. In female (fig.2.1) and male (fig.2.2) normative groups we have noticed gender-age changes. These changes were of low validity and did not influence the transformation of functional-vegetative levels (in comparison with the zone of the average functional-vegetative norm).



However, there is again a principle question: can the normative diagram be stable during the assessment of the dynamic activity of functional-vegetative homeostasis in children of junior school age? The answer is -NO! The point is that, the systemic correlation depends on continuous functional needs of the biological system and cannot be stable.

The only thing that remains stable is the level of vegetative equilibrium: correlation of sympathetic and parasympathetic (YANG-YIN) activity, which is reflected trough the coefficient of vegetative equilibrium ( $\mathbf{k}=VE$ ). This has been testified by the diagrams of the normative indices under  $\mathbf{k}=1$  through separate ages of life of pre-school age children (fig. 2.3) and their relation to the zone of systemic functional norm (0-zone).



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Fig.2.3 Correlation of systemic dependency in female and male groups of pre-school age children under the vegetative equilibrium (k=1).

## Conclusion

1. In junior school age the norms in separate age groups are similar to the average statistical data and do not influence the transformation of functional-vegetative levels in age-normative groups.

2. At the same time, it should be remembered that the coefficient of vegetative equilibrium (k=VE) is the only indicator that holds the diagnostic value, and systemic functional correction should be performed under its control.

#### **3.** NORMATIVE DIAGRAMS OF THE JUVENILE AGE 12-16 YEARS (K-VE=0,95-1,05)

The observation group included 1740 teenagers with the initial state of vegetative equilibrium (k-VE=0.95-1.05 – borders of the absolute norm "zone of vegetative equilibrium"). The total number of participants included 939 female and 801 male representatives.

Table 3.1

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		F	UNCTI	ONAL-	VEGET	ATIVE	SYSTE	EMS (A	CTIVIT	Y IN %	)	
AGE	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST
12 p	8,68	7,55	7,94	8,30	7,25	9,09	10,6	7,44	7,90	11,4	6,56	7,32
13 p	8,46	7,21	7,57	7,36	6,66	9,19	11,4	7,36	8,12	12,3	6,66	7,75
14 p	8,76	7,49	7,63	7,67	7,18	9,40	10,7	7,43	8,01	10,9	6,97	7,92
15 p	9,15	7,47	7,95	7,51	7,22	9,72	11,1	7,19	7,40	11,6	6,11	7,57
16 p	8,78	7,96	8,03	8,03	7,48	9,42	10,3	7,21	7,70	10,5	6,46	8,06
Μ	8,74	7,52	7,80	7,76	7,14	9,34	10,8	7,34	7,87	11,3	6,61	7,73

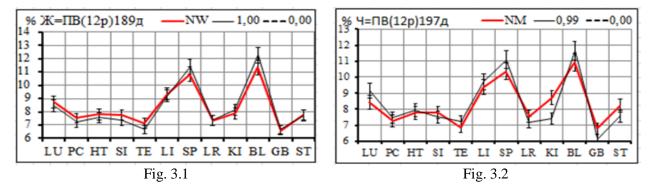
The norms for FVD for the female group of the juvenile age through the ages of 12-16 years. <u>Note:</u> M – average data of the mixed by age female group (939 children).

Table 3.2

The norms for FVD for the male group of the juvenile age through the ages of 12-16 years. <u>Note:</u> M – average data of the mixed by age male group (801 children).

AGE		F	UNCTI	ONAL-	VEGET	ATIVE	SYSTI	EMS (A	СТІУІЛ	TY IN %	5)	
AGE	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST
12 p	8,66	7,45	8,17	7,76	7,24	9,49	10,4	7,31	8,19	11,1	6,74	7,55
13 p	8,22	7,10	7,68	7,81	6,84	8,87	10,9	7,28	8,93	11,9	6,67	7,84
14 p	8,38	7,44	7,65	7,68	6,83	9,43	9,93	7,83	8,78	10,5	7,01	8,56
15 p	8,61	7,09	7,52	7,74	6,81	9,50	10,6	7,66	8,69	10,7	6,53	8,49
16 p	8,40	7,14	7,91	8,03	6,62	9,62	10,1	7,52	8,94	10,5	6,78	8,50
М	8,44	7,26	7,76	7,78	6,87	9,36	10,4	7,55	8,71	10,9	6,77	8,20

The detailed analysis and the comparison of the normative diagrams of female (fig. 3.1) and male (fig. 3.2) groups of the juvenile age through separate years, testify to their complete comparability with the basic (mixed by age) normative histograms (on the example of the groups of 12 years of age)...



But again there is a fundamental question: can the normative diagram be stable under the assessment of dynamic activity of functional-vegetative homeostasis in adolescent school children? The answer is categorical - No! System value depends on the momentary functional needs of a biological system, by its nature cannot be stable.

The only thing that remains stable is the vegetative level, which is reflected trough the coefficient of vegetative equilibrium ( $\mathbf{k}=\mathbf{VE}$ ). This has been testified by the diagrams under  $\mathbf{k}=\mathbf{1}$  through separate ages of life of the adolescent school children (fig. 3.3) and their relation to the zone of systemic functional norm (0-zone).

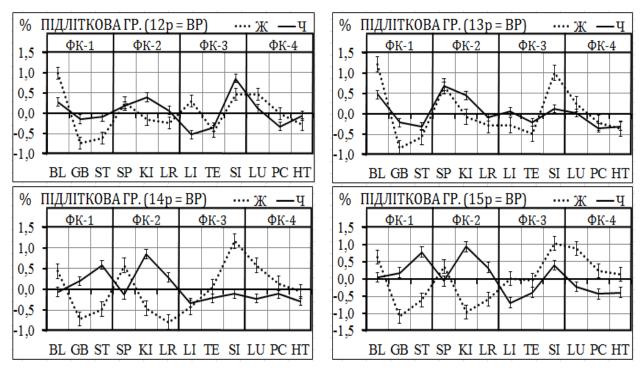


Fig.3.3 Correlation of systemic dependency through separate years of life in female and male groups of juvenile age under the vegetative equilibrium (k=1).

#### Conclusion

1. In the juvenile age the norms through separate ages do not significantly differ from the average statistical indices for the age group of 12-16 years. The marked deviations are

of low validity and do not influence the transformation of functional-vegetative levels in the represented normative groups of children.

2. At the same time, it should be remembered that the coefficient of vegetative equilibrium (k=VE) is the only indicator that holds the diagnostic value, and systemic functional correction should be performed under its control.

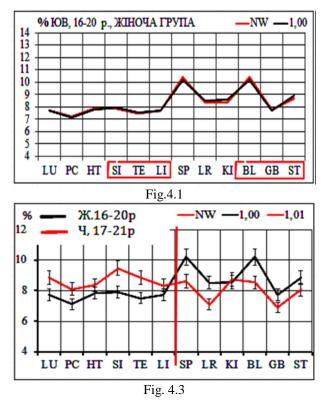
## 4. NORMATIVE DIAGRAMS OF THE PREADULT AGE (K=VE=0,95-1,05)

The preadult age group included 1.352 female representative (16-20 years) and 37 male representatives (17-21 years). They were selected according to the initial state of functional-vegetative equilibrium within the frames of vegetative coefficients 0,95-1,05, that indicated the state of vegetative equilibrium (state of functional health).

The average statistical indices of the systemic functional-vegetative dependency in the mixed by age female group (16-20 years) form the character of the histogram (fig. 4.1), which practically does not differ from the previously established norm (marked with red)...

The average statistical indices of the systemic functional-vegetative dependency in the mixed by age male group (17-21 years) form the specific character of the histogram (fig. 4.2), which significantly differs from the previously established norm (marked with red)...

The comparison of the systemic functional-vegetative norms for the female and male preadult groups (fig. 4.3) points to their substantial difference. At the same time, it should be noted that there is a specific difference in the right and left side of the histograms: systems LU, PC, HT and SI, TE, LI (left side of the male group marked with red) exceed the values of the female norms, while SP, LR, KI and BL, GB, ST (right side of the male group, marked with red) show the opposite activity..., which requires principle attention during the analysis of FVD.



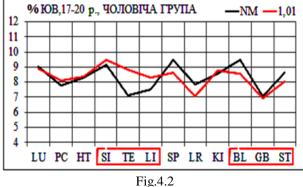


Fig. 4.1-3 Specificity of the systemic dynamics during vegetative equilibrium in female and male groups of the preadult age.

Table 4.1

AGE		F	UNCTI	ONAL-	VEGET	TATIVE	SYSTI	EMS (A	CTIVIT	Y IN %	)	
AGE	LU	PC	HT	SI	TE	LI	SP	LR	KI	BL	GB	ST
16 p	8,56	7,7	7,81	9,42	7,55	7,63	10,6	7,63	7,87	10,5	6,42	8,35
17 p	7,62	7,06	7,86	7,77	7,39	7,65	10,3	8,7	8,53	10,4	7,98	8,82
18 p	7,42	6,85	7,65	7,45	7,43	7,69	10,2	9,05	8,92	9,9	8,11	9,35
19 p	7,7	7,21	8,12	7,75	7,7	7,91	10,2	8,17	8,54	10,1	7,86	8,74
20 p	9,26	7,55	7,37	9,51	7,79	7,86	10	7,99	7,71	10,6	6,71	7,62
Μ	7,74	7,13	7,83	7,92	7,52	7,74	10,2	8,53	8,56	10,2	7,75	8,89

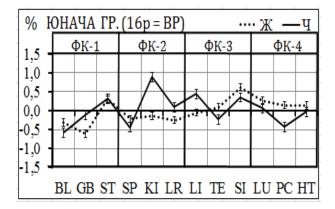
For now, we have drawn the following norms for FVD for the female group of the preadult age through the years of life (17-21). *Note: M* – *average data of mixed by age female group (1352 individuals).* 

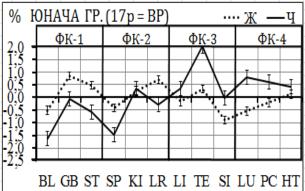
Table 4.2

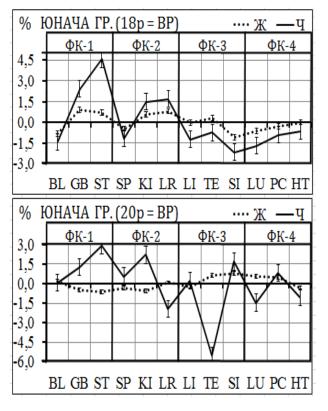
The drawn norms of the FVD for the individuals of the male group of the preadult age through the years of life. *Note:* M – *average data of mixed by age male group (37 children).* 

AGE		F	UNCTI	ONAL-	VEGET	<b>CATIVE</b>	SYSTI	EMS (A	CTIVII	TY IN %	5)	
AGE	LU	PC	HT	SI	ТЕ	LI	SP	LR	KI	BL	GB	ST
17 p	8,91	8,14	8,66	9,32	9,18	8,33	8,74	6,91	8,52	8,62	6,97	7,7
18 p	10,0	5,0	4,33	8,33	4,0	6,67	11,7	10	8,33	11,7	10,0	10,0
19 p	7,69	8,66	8,66	9,62	10,6	8,66	6,73	8,66	9,62	6,73	5,77	8,66
20 p	8,28	7,69	6,51	10,7	4,73	7,69	7,69	8,28	11,2	8,28	7,1	11,8
Μ	8,89	8,11	8,37	9,47	8,85	8,33	8,62	7,09	8,76	8,55	6,91	8,06

However, there is again a principle question: can the normative diagram be stable during the assessment of the dynamic activity of functional-vegetative homeostasis in children of preadult age? The answer is – NO! The point is that, the systemic correlation depends on continuous functional needs of the biological system and, according to its nature, cannot be stable. The only thing that remains stable is the level of vegetative equilibrium: correlation of sympathetic and parasympathetic (*YANG-YIN*) activity, which is reflected trough the coefficient of vegetative equilibrium ( $\mathbf{k}=\mathbf{VE}$ ). This has been testified by the diagrams of the normative indices under  $\mathbf{k}=\mathbf{1}$  through separate ages of life of preadult age children (fig. 4.4).







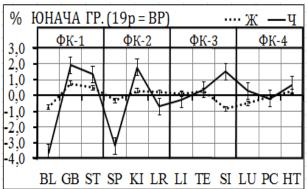


Fig. 4.4 Correlation of systemic dependency of female and male preadult groups under vegetative equilibrium (k=1).

#### Conclusion

1. Separate gender-age norms of preadult groups (16-20 years) do not practically differ from one another according to their levels of functional-vegetative equilibrium (VE). At the same time, systemic dependency may have specific functional differences.

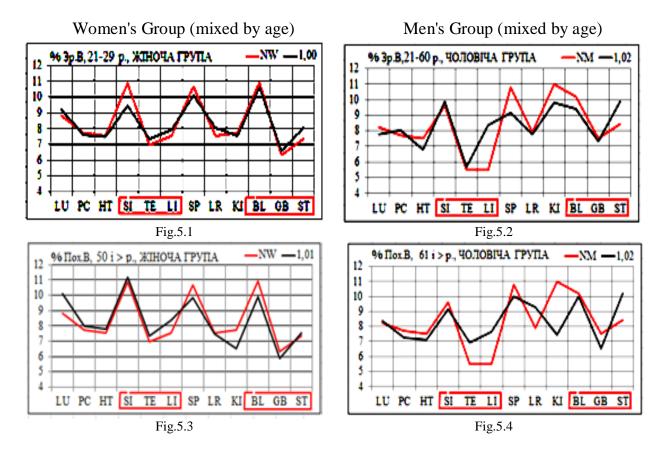
2. Systemic dependency in mixed by age male preadult group (17-21 years) differs from the norms of the female groups. Their analysis through the years of age points to the opposite directed dynamic of the left (excitation of LU, PC, HT – SI, TE, LI) and the right (oppression of SP, LR, KI-BL, GB, ST) side of the normative statistically average diagram. The revealed gender-age specificity of normative indices points to the principle diagnostic value of k-VE, which shows the level of functional-vegetative homeostasis. The next diagnostic landmark is the activity of the complex systems (with relation to the zone of their functional norm)...

3. At the same time, it should be remembered that the coefficient of vegetative equilibrium (k=VE) – is the only indicator, which has basic diagnostic value (systemic functional correction must be conducted under its control).

#### 5. NORMATIVE HISTOGRAMS OF ADULTHOOD

The groups of observation included adult individuals with the initial state of functional-vegetative equilibrium within the frames of the vegetative coefficients 0,94-1,05 that pointed to the state of vegetative equilibrium (functional health) of the individuals. The female group included 124 adults with 21-50 years of age, and 14 adults with 51 and more years of age. The male group included 73 individuals with 22-60 years of age, and 18 individuals with 61 and more years of age.

The specificity of systemic interdependency in female and male groups of the adult groups with the initial state of functional-vegetative equilibrium has its peculiarities. Its statistically average interdependency is vividly displayed by five upper points of the prevailed activity of the following functional systems (LU – lungs, SI – small intestine, SP – spleen-pancreas, BL – urinary bladder and ST - stomach). The female and male diagrams of the adult age group point to it (fig.5.1, fig.5.2, fig.5.3, fig.5.4).

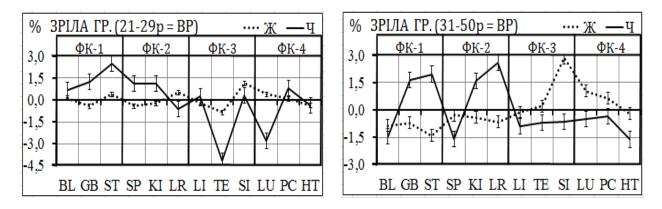


It is clear that the systemic dependency in the adult groups (even with the initial state of vegetative equilibrium) has its peculiarities. In this age pathogenically conditioned functional disorders acquire their clinically expressed forms. Taking into account their combinative variety, let us pay attention only to systemic correlation in the conditions of vegetative equilibrium of the mentioned groups of observation (fig.5.5).

Generally, the following is becoming obvious:

- the contrast of complex-systemic correlation is more expressed in male groups of observation (black line);

- complex-systemic correlation in female groups of observation is more smooth and points to the prevalence of the activity of the channel SI (small intestine).



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Fig.5.5 Correlation of systemic dependency in female and male groups of the adult age under vegetative equilibrium (k=1).

### Conclusion

1. The reality of poor functional health of in the adulthood does not allow speaking about its normative characteristics. This conditions principle orientation to the determination of the individual levels of vegetative disorders (according to k-VE).

2. At the same time, it should be remembered that the coefficient of vegetative equilibrium (k=VE) is the only indicator that holds the diagnostic value, and systemic functional correction should be performed under its control.

But surprises did happen! In female and male groups of mixed age, we found specific peculiarity of functional systems of first and fourth complexes: diametrically opposite direction of functional activity of BL-SP and KI-GB (fig.5.6). We will return to the phenomenon, but we are to turn our attention again to uniformity of group functional diagnoses: vegetative equilibrium (k=0, 95-1, 05)...

Observing the issue of FVD, we should pay attention to its official prototype – variational pulsomentry, according to R. Bajevskij.

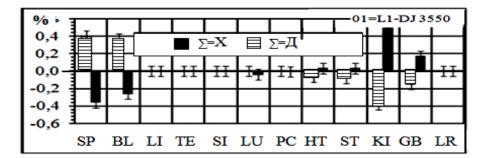


Fig.5.6 Activity of SP-BL and KI-GB in female (Д) and male (X) groups during vegetative equilibrium.

#### 6. VARIATIONAL PULSOMETRY AS THE PROTOTYPE OF "FVD"

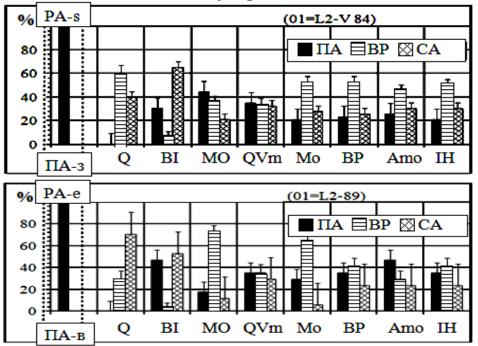
Existing electropunctural prototypes of FVD are unworthy of attention because of the following reasons: they are unable to provide comparable results during repeated (in 5-10-15 minutes) examinations. The exception is for variational pulsometry, which is officially considered as a diagnostic test in the Western vegetology (Вейн, 2000).

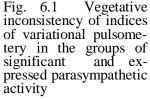
It is based on the conception of nervism, which binds functional pathology with disorder of dynamic stability of sympathetic and parasympathetic activity of VNS. Basic indicators of variational pulsometry are considered to be:  $\mathbf{Q}$  – intersystem relations (ISR) (in our observations first column (-), second (+);  $\mathbf{VI}$  – vegetative index Kerdo;  $\mathbf{MV}$  – minute's blood volume;  $\mathbf{QVm}$  – minute's blood volume index;  $\mathbf{Mo}$  – mode;  $\mathbf{VR}$  – variational range;  $\mathbf{Amo}$  – amplitude of mode and  $\mathbf{VI}$  – voltage index of regulatory systems).

For estimation of biophysical efficiency of variational pulsometry we selected comparability of results of mathematical calculations (indications were compared between each other in seven groups of observations, based on general initial functional-vegetative level).

Groups were formed according to FVD, resulted of which were taken as 100% (first column of diagrams – 189 observations) and reflected initial states of significant PA (PA-s) ( $\Pi A$ -3H) and expressed PA (PA-e) ( $\Pi A$ -B), zone of its functional compensation (FcP) ( $\Phi \kappa \Pi$ ) and vegetative equilibrium (VE) (BP), zone of functional compensation (FcS) of SA ( $\Phi \kappa C$ ), its expressed (SA-e) (CA-B) and significant (SA-s) (CA-3H) levels.

Received data *do* impress with its different direction of officially recognized indexes, which conditions conclusion about diagnostic inconsistency and testifies to the uselessness of variational pulsometery (**VP**) for integral estimation of functional-vegetative homeostasis. Additionally, alerts the fact, that even in relation to the cardiovascular system its indications lack certainty (fig.6...1-3).





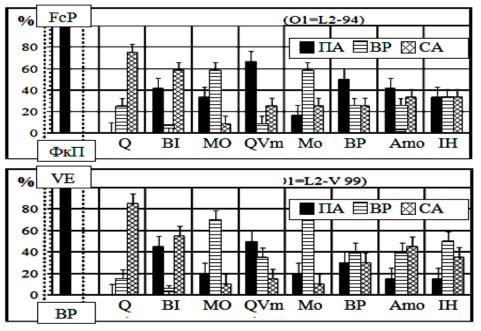


Fig.6.2 Vegetative inconsistency of indices of variational pulsometery in groups of functional compensation of PA and vegetative equilibrium.

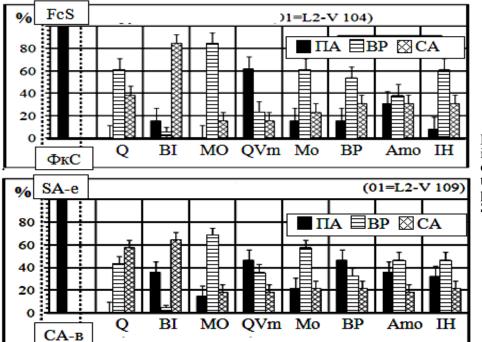


Fig. 6.3 Vegetative inconsistency of indices of variational pulsometery in groups of expressed and significant SA.

The presented biophysical peculiarities of FVD testify to its specific originality, which allowed identifying hypothetical acupunctural channels, forming levels of vegetative disorders, discovering vegetative laws and grounding effectiveness of its practical usage. In this case, we note that the blind use of " acupuncture recipes" of traditional Acupuncture treatment (with no previous functional diagnostics) indicates unavailability for professional...

# General conclusions to pay attention to

Specific peculiarities of functional vegetative diagnostics (FVD) according to Makats V. are:

1) Absence of external sources of power;

2) The biophysical relation of diagnostic signals, that do not exceed the levels of membrane potentials (0,03-0,6 V);

3) Reality of technological, methodological and biophysical peculiarities FVD;

4) Usage of previously unknown phenomena of asynchronicity and total activity of symmetrical functionally active zones (FAZ);

5) The main focus of the diagnostics are the levels of vegetative homeostasis and their functional duration;

6) Possibility to receive stable diagnostic results during repeated examinations;

7) Availability of authentic standardization framework;

8) Absence of analogues of FVD, conditioned by discovery of previously unknown functional-vegetative system;

9) Biophysical alternative to traditional pulse diagnostics...

#### References

- 1. Vegetativnyie rasstroystva. Klinika, diagnostika, lechenie /Veyn A. M., Voznesenskaya T. G., Vorobeva O. V. [i dr.]; pod red. A. Veyna. M.: Meditsinskoe informatsionnoe agentstvo, 2000. 750 p. ISBN 5-89481-066-3
- Netraditsionnyie metodyi diagnostiki i terapii : monografiya / Samosyuk I.Z., Lyisenko V.P., Limanskiy Yu.P. [i dr.]; K. : Zdorove, 1994. 137 p. ISBN 5-311-00804-0
- 3. Rozanov A.L. Metod elektropunkturnoy diagnostiki "Prognoz"// Refleksoterapiya. №1(04)2003. S. 26-39.

- Rukovodstvo po refleksoterapii. Elektropunkturnaya diagnostika Nakatani Test : monografiya / Samosyuk I.Z., 4. Fisenko L.I., Chuhraev N.V. [i dr.] ; K. : AO Ukrprofzdravnitsa, 1997 –206 p. Rukovodstvo po refleksoterapii. Elektropunkturnaya diagnostika - Nakatani Test : monografiya / Samosyuk I.Z.,
- 5. Fisenko L.I., Chuhraev N.V. [i dr.]; K. : AO Ukrprofzdravnitsa, 1997. –206 p.
- 6. Togoev A.M., Ponomarev A.V., Usupbekova B.Sh., Vasilenko A.M. Vnedrenie metodov reflektornov diagnostiki i bez lekarstvennoy terapii v otdelenii vosstanovitelnogo lecheniya gorodskoy polikliniki // Refleksoterapiya. - №3(14), 2005. – P.50-56.
- Voll Reinhold. Twenty years of electropuncture diagnostic in Germani / R Voll ; Amer. J. Acupuncture. 1975. vol. 7. 3. - № 7