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CHINESE ACUPUNCTURAL CHANNELS AS BIOPHYSICAL REALITY

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These materials are unparalleled and is the intellectual property of developers towards "functional-vegetative diagnosis without using external power sources" (Makats V.G., Makats E.F, Makats Dm. V., Makats Dan. 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.

Ключевые слова: Чжень-цзю терапия, функционально-вегетативная диагностика, вегетативный гомеостаз, функциональная реабилитация.

Приведенные материалы не имеют аналогов и является интеллектуальной собственностью разработчиков направления "Функционально-вегетативная диагностика без использования внешних источников тока" (Макац В. Г., Макац Е. Ф., Макац Дм. В., Макац Дэн. В.). Рассмотрены ее биофизические особенности и объективность при оценке реабилитационной эффективности.

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Introduction

Before analyzing these histograms remind the international nomenclature acupuncture channels (MAN, Figure 1), which we always enjoy. In this case, we note that submissions are unparalleled [1-22].

A methodology of functional-vegetative diagnosis poses a real control of the therapeutic and rehabilitation effectiveness.

Consider the following biophysical features puncture functional-vegetative diagnosis ...

Traditional channel	IAN *	FN	Traditional channel	IAN *	FN
Lungs	LU	P	Urinary bladder	BL	V
Large intestine	LI	GI	Kidney	KI	R
Stomach	ST	E	Pericardium	PC	MC
Spleen – Pancreas	SP	RP	Triple energizer	TE	TR
Heart	HT	C	Gall bladder	GB	VB
Small intestine	SI	IG	Liver	LR	F

**IAN - International Acupuncture Nomenclature (WHO); FN - its French analogue.*

Fig 1 Abbreviation of acupunctural channels

Phenomenon of functionally directed transport of charge carriers

Phenomenon of energy direction between single-channel FAZ in the system Lungs (LU), biophysically supports canonical statement of its centrifugal character.

It has been established, that traditionally centrifugal, or artificially centripetal direction of charge carriers increases significantly under conditions of concurrency of hypothetical and initiated directions. Phenomenon testifies to the reality of valvular mechanism, in other words to natural centrifugal activity of the mentioned system (fig.2).

Phenomenon of directed transport is also detected during the usage of electrode pair DE-AE.

Here maximal conductivity was during the position of electrode DE on FAZ LU³ and AE – by turn from LU⁴ to LU¹¹. At the same time, it should be noted, that study of valvular-channel effects has significant perspective (our works should be viewed as methodological aspect of the problem). Thus, doors for people with inquiring nature are open.

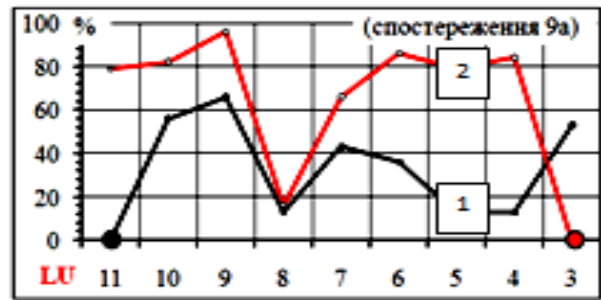


Fig.2 Centripetal (1) and centrifugal (2) electroconductivity of the channel LU

Phenomenon of systemic dependency on activity of channels BL-SP (fig.3).

Specifics of influence of the channels BL-SP on directed activity of other systems has been identified: their excitation conditions oppression of other channels (and vice versa) and conditions value of posture during FVD (example of BL).

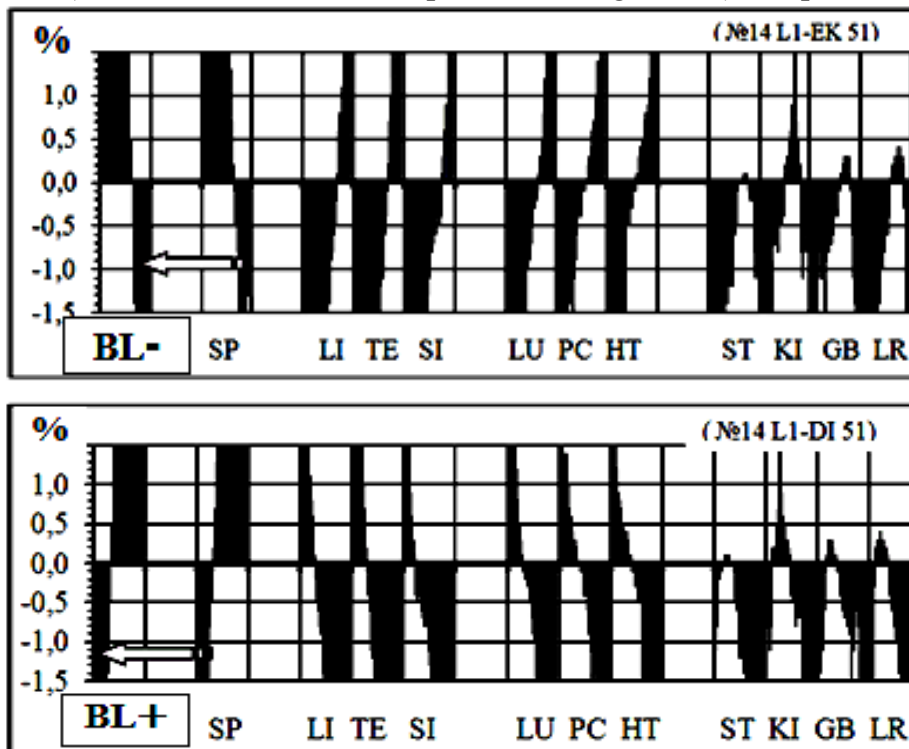


Fig.3 Systemic reactions on excitation and oppression of BL

Value of ortho- and clinostatics for FVD (phenomenon of posture)

According to our data in 73,2% cases change of posture from orthostatics (standing - ↑) to clinostatics (lying - →) conditions direction of vegetative homeostasis to parasympathetic activity. At the same time, change of body position is accompanied with the increment in activity of BL-SP, which conditions prevailed oppression of other channels. Change of posture from clinostatics to orthostatics, on the contrary, conditions oppression of BL-SP and prevailed excitation of other channels (fig.4).

The discovered phenomenon of posture became an argument in favour of standing position while conducting FVD. Taking into account, that nearly all functional diagnostics (ECG, EEG and others) are conducted in clinostatic position, consequences must be, at least, taken into consideration...

More detailed analysis of the discovered phenomenon has testified, that functionally-parasympathetic direction is controlled by functional system BL (increment in activity is accompanied with the decrease of parasympathetic tension and vice versa).

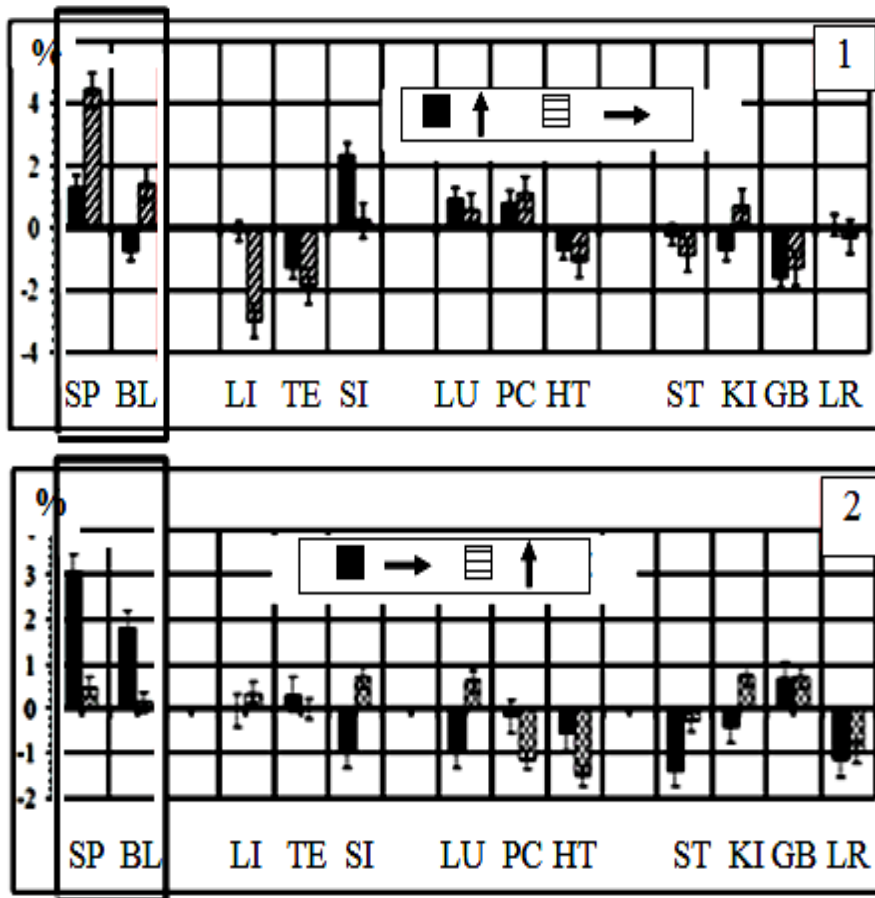


Fig.4 Activity of BL-SP during ortho- and clinostatics (phenomenon of posture). Change from ortho- to clinostatics (1), from clino- to orthostatics (2).

Gander-age peculiarities of functional-vegetative standards

The most important problem of every diagnostic technology is related to credibility of its standardization framework, which for every gender-age group must have specific average-statistical and regional indices. As for FVD, here situation is very specific. The thing is that under any condition functionally-vegetative homeostasis is automatically directed to maintain its own dynamic stability (within the frames of “functional compensation of PA – vegetative equilibrium – and functional compensation of SA”). Over-running of these frames causes vegetative disorders of various levels.

Standardization base is elaborated according to sufficient number of observations (8,416 girls and 5,875 boys of various age-gender groups). At the same time, 2,208 of practically healthy children with initial state of vegetative equilibrium ($k=0,95-1,05$) were selected for observations in standard group.

We accentuate attention on this, because some gender-age peculiarities of system activity that were detected, do not affect the final result!

The received results testify to high identity of received values of variational range and average error of arithmetic mean value. Practically, we haven't found any attention worthy deviation in every gender-age groups [female (Д), male (X) and mixed by gender and age (MGA)]. Let us observe the diagrams of various gender-age groups (fig.5.1-4).

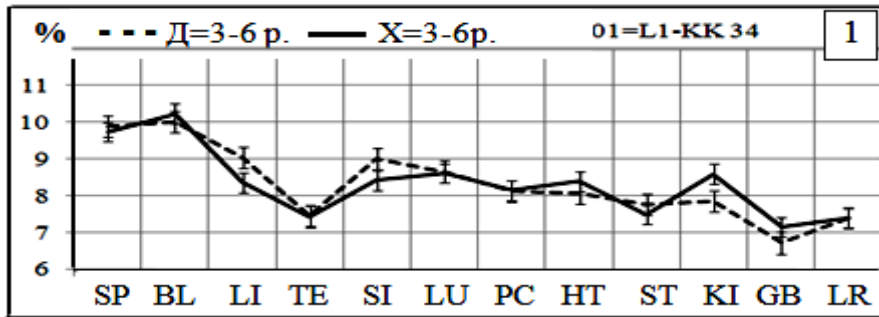


Fig. 5.1 Standard diagrams of children of pre-school age (1) and junior school age (2) in female (D) and male (X) group.

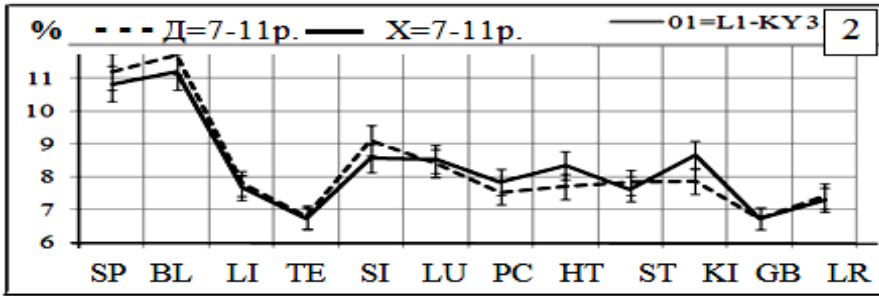


Fig.5.2 Standard diagrams of juvenile age (1) and preadult age (2) in female (D) and male (X) groups.

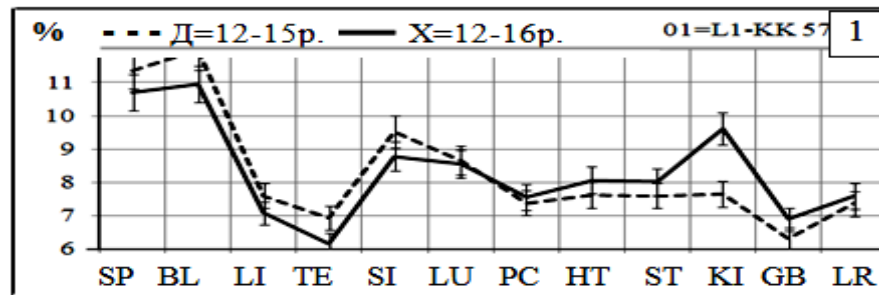
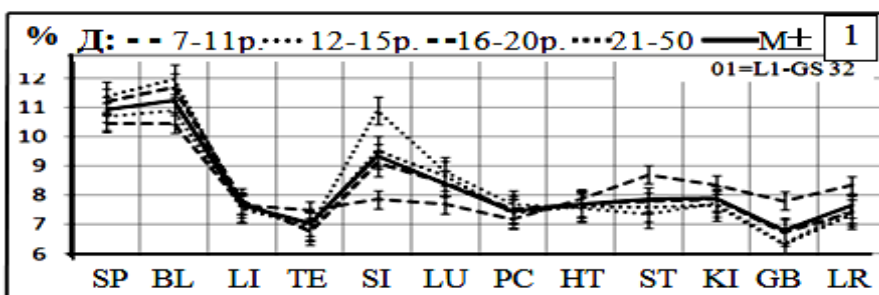
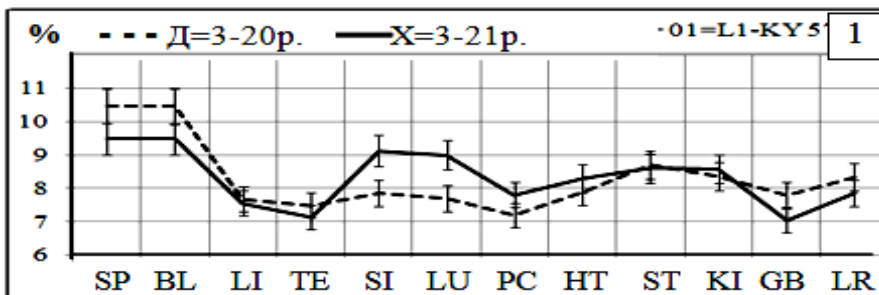
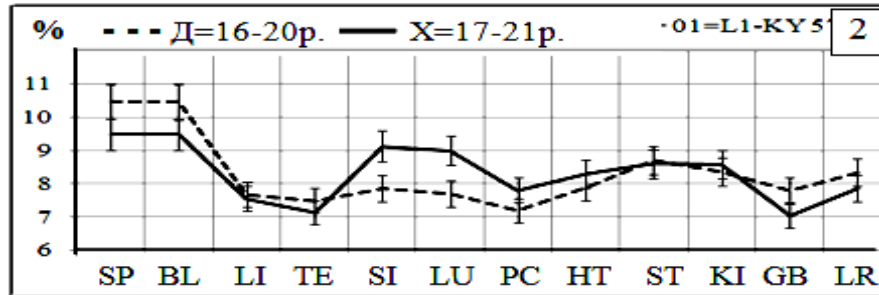


Fig.5.3 Standard diagrams of female (D,Ж) and male (X,Ч) groups of mixed (3-21 years) and mature age (21-60 years)



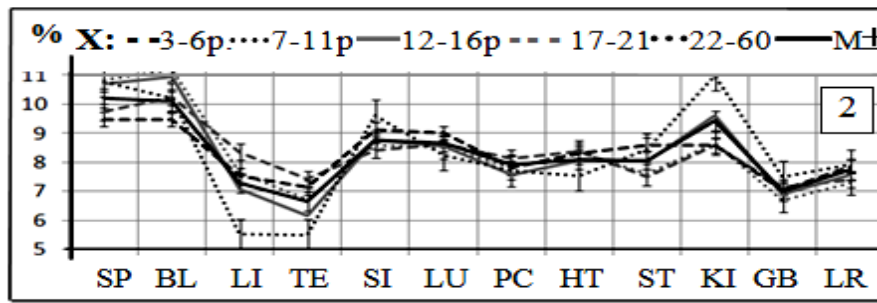


Fig.5.4 Standard diagrams of male (1) and female (2) groups (3... 61 years).

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.6). We will return to the phenomenon, but we are to turn our attention again to uniformity of group functional diagnoses: vegetative equilibrium ($k=0, 95-1, 05$) ...

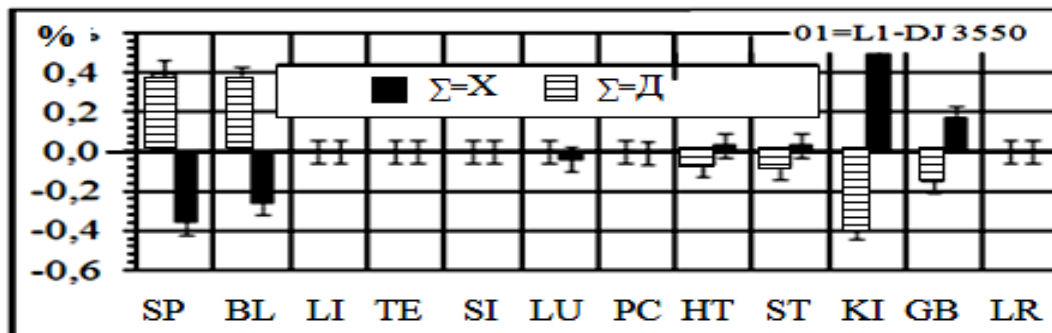


Fig.6 Activity of SP-BL and KI-GB in female (D) and male (X) groups during vegetative equilibrium.

Eventually, we elaborated two packages of standardized data: separately for female and male groups for scientific observations (fig.7; 2432 observations)...

N(D)=FVD	SP	BL	LI	TE	SI	LU	PC	HT	ST	KI	GB	LR
min	10,77	11,01	7,64	7,13	8,56	8,08	7,29	7,73	8,13	7,99	7,09	7,79
M	10,86	11,13	7,71	7,18	8,62	8,14	7,34	7,78	8,19	8,05	7,14	7,85
max	10,95	11,25	7,78	7,23	8,68	8,20	7,39	7,83	8,25	8,11	7,19	7,91

N(X)=FVD	SP	BL	LI	TE	SI	LU	PC	HT	ST	KI	GB	LR
min	10,16	10,69	7,80	6,93	9,22	8,26	7,33	7,85	8,03	8,71	6,88	7,43
M	10,31	10,81	7,89	6,98	9,27	8,31	7,36	7,89	8,07	8,75	6,91	7,46
max	10,45	10,93	7,93	7,03	9,32	8,36	7,39	7,93	8,11	8,79	6,94	7,49

Fig.7 Functional-gender standard base of FVD

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

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. Exception is for variational pulsoFmetry, which is officially considered as diagnostic test in Western vegetology (Wane, 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: **Q** – intersystem relations (ISR) (in our observations first column (-), second (+)); **VI** – vegetative index Kerdo; **MV** – minute’s blood volume; **QVm** – minute’s blood volume index; **Mo** – mode; **VR** – variational range; **Amo** – amplitude of mode and **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) (ΠΑ-3H) and expressed PA (PA-e) (ΠΑ-В), zone of its functional compensation (FcP) (ΦκΠ) and vegetative equilibrium (VE) (BP), zone of functional compensation (FcS) of SA (ΦκC), 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 uselessness of variational pulsometry (VP) for integral estimation of functional-vegetative homeostasis. Additionally, alerts the fact, that even in relation to cardio-vascular system its indications lack certainty (fig. 8.1-3).

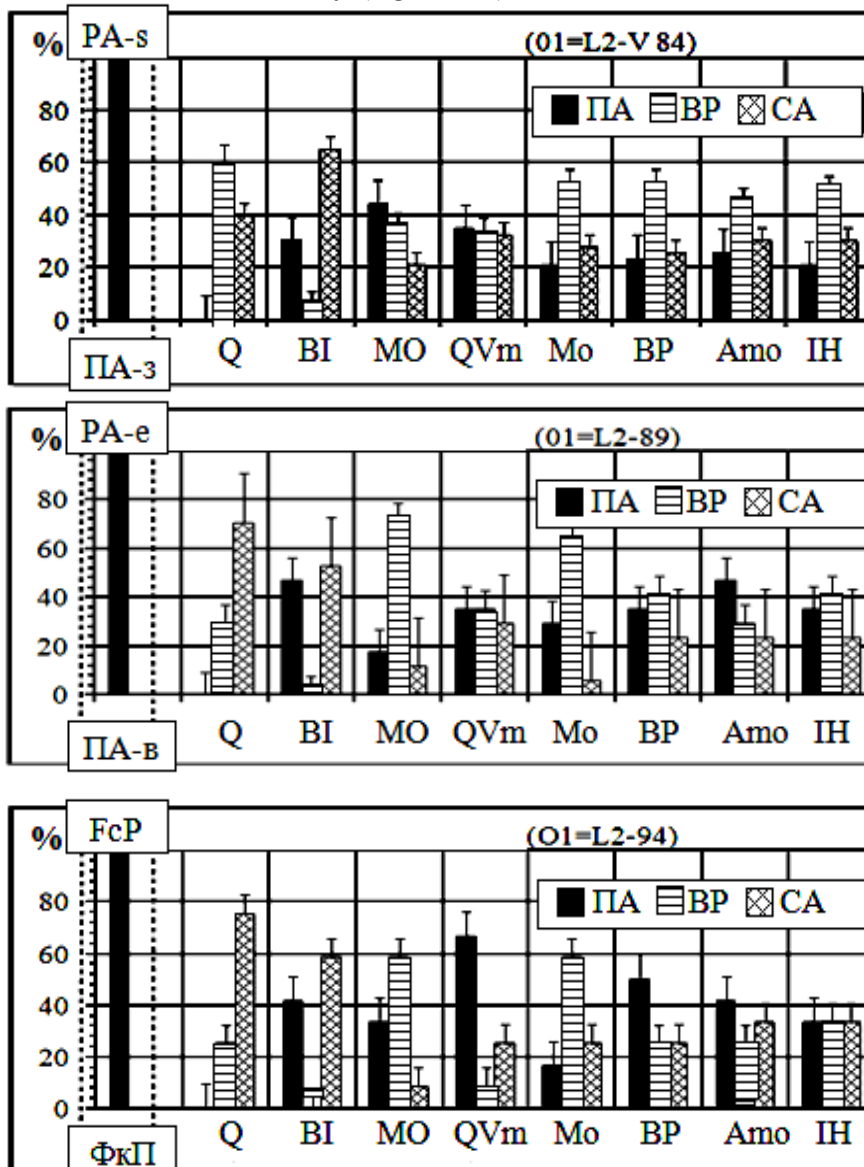


Fig.8.1 Vegetative inconsistency of indices of variational pulsometry in the groups of significant and expressed parasympathetic activity

Fig.8.2 Vegetative inconsistency of indices of variational pulsometry in groups of functional compensation of PA and vegetative equilibrium.

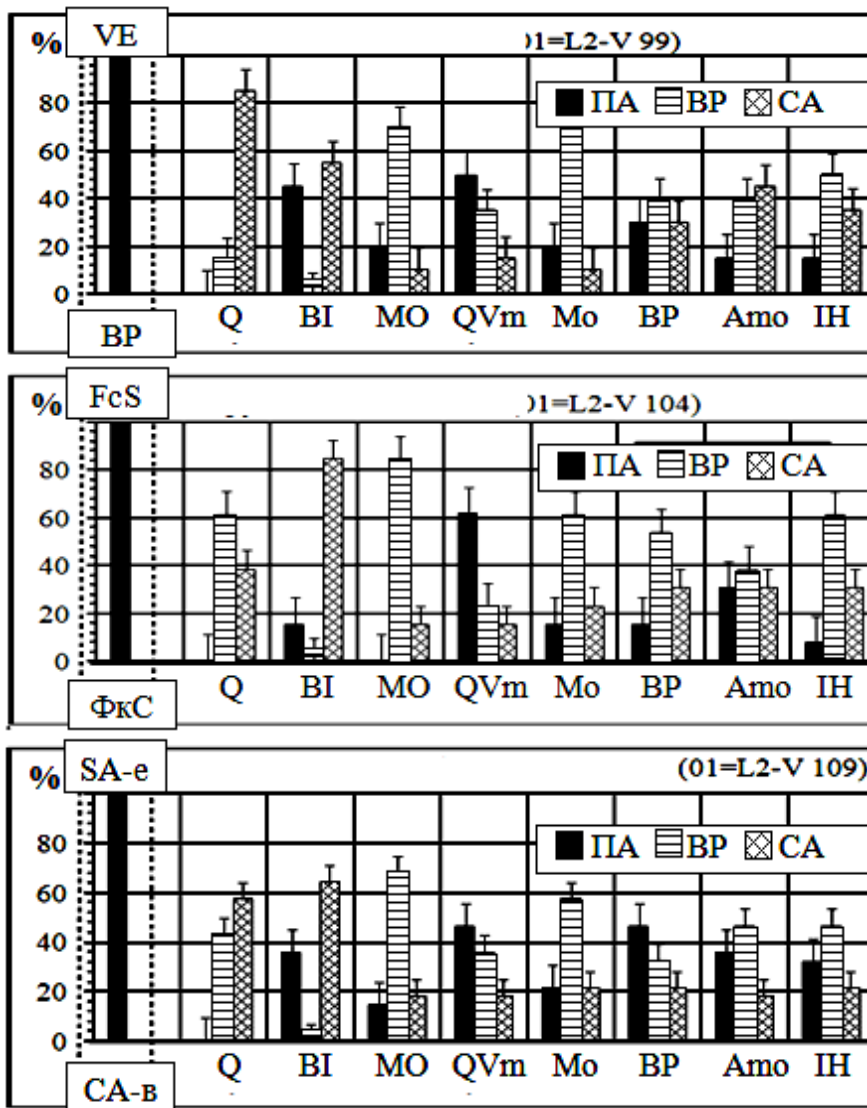


Fig.8.3 Vegetative inconsistency of indices of variational pulsometry in groups of expressed and significant SA.

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. At the same time we remark, that joint use of “acupunctural methods” of traditional *Zhenjiu* therapy (without prior functional diagnostics) testifies to professional unpreparedness...

GENERAL CONCLUSIONS TO PAY ATTENTION TO

Специфічною особливістю функціонально-вегетативної діагностики (ФВД) по В.Макацу являється:

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

- absence of external sources of power;
- biophysical relation of diagnostic signals, that do not exceed the levels of membrane potentials (0,03-0,06 V);
- reality of technological, methodological and biophysical peculiarities FVD;
- usage of previously unknown phenomena of asynchronicity and total activity of symmetrical functionally active zones (FAZ);

- diagnostic attention is targeted at standard levels of functional-vegetative homeostasis;
- possibility to receive stable diagnostic results during repeated examinations;
- availability of authentic standardization framework;
- absence of analogues of FVD, conditioned by discovery of previously unknown functional-vegetative system;
- biophysical alternative to traditional pulse diagnostics...

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