



**MAKATS D.V.**

## CHINESE ACUPUNCTURAL CHANNELS AS BIOPHYSICAL REALITY

(INFORMATION 3)

Senior researcher (European centre for postgraduate education of doctors of the PO the "Ukrainian national Academy of Sciences")

*The methodology of identification of the traditional acupunctural channels is unique. For the first time in the world practice it became possible to prove their biophysical reality and direct relation to vegetative homeostasis.*

**Key words:** Zhenjiu therapy, acupunctural channels, functional-vegetative system of the human.

*Наведені матеріали не мають аналогів. Показана біофізична реальність окремих акупунктурних каналів (функціональних систем) і їх функціональні комплекси.*

**Ключові слова:** Чжень-цзю терапія, акупунктурні канали, функціонально-вегетативна система людини, функціональна реабілітація.

*Представленные материалы не имеет аналогов. Показана биофизическая реальность отдельных акупунктурных каналов (функциональных систем) и их функциональных комплексов.*

**Ключевые слова:** Чжень-цзю терапия, акупунктурные каналы, функционально-вегетативная система человека, функциональная реабилитация.

### Introduction

Understanding the principle value of everything, which is done, we draw attention to the groups under observation that were formed according to gender-age indexes and were distinguished by gender and age, and mixed. At the same time, the number of examined, during a long period of time, children and adults testify to statistical probability of the performed analysis and established conclusions to the issue (tab.1).

Table 1

| ГРУПИ ОБС ТЕЖЕНИХ<br>GROUPS OF EXAMINED         | ВІК<br>AGE                       |                | КІЛЬКІСТЬ<br>QUANTITY |                |
|---|----------------------------------|----------------|-----------------------|----------------|
|   | ДІВЧАТА<br>GIRLS                 | ХЛОПЦІ<br>BOYS | ДІВЧАТА<br>GIRLS      | ХЛОПЦІ<br>BOYS |
|   | МОЛОДША ШКІЛЬНА<br>JUNIOR SCHOOL | 7-11           | 7-12                  | 2.386          |
| ПІДЛІТКОВА<br>ADOLESCENT                        | 12-15                            | 13-16          | 3.165                 | 2.613          |
| ЮНАЧА<br>JUVENILE                               | 16-20                            | 17-21          | 2.629                 | 129            |
| ЗРІЛА<br>MATURE                                 | 21-50                            | 22-60          | 240                   | 95             |
| ЗМІШАНА ПО ВІКУ<br>MIXED BY AGE                 | 7-20                             | 7-21           | 8.416                 | 5.875          |
| ЗМІШАНА ПО ВІКУ І СТАТІ<br>MIXED BY AGE AND SEX | 7-21                             |                | Всього<br>INTOTAL:    | 14.304         |

| 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

And now, we are facing the problem of identification of dependency between separate "acupunctural channels" that from this moment also have the right to be called as "functional systems" and remember the acronym traditional acupuncture channels (fig.1), which we always enjoy.

### Results of research

#### 1. Biophysical reality of systemic interdependency

Comparing in traditional order (LU-LI-ST-SP-HT-SI-BL-KI-PC-TE-GB-LR) bio-electrical activity of acupunctural channels, for the first time we have revealed the

phenomenon of differently directed dependency during sequential excitation of separate functional systems.

At the same time, in the chain of the Big cycle three types of biophysical response were registered: synchronous excitation with the system of attention, asynchronous oppression and paradoxical reaction.

Their biophysical peculiarity is in the following: *synchronous excitation* – is excitation of the system of attention, which accompanies excitation of the system of control; *asynchronous oppression* – is oppression of the system of attention, which accompanies excitation of the system of control; *paradoxical reactions* – is the initial excitation of the system of attention, which accompanies excitation of the system of control to the zone of its functional norm, and which changes to oppression with its further excitation (and, vice versa).

All mentioned types have been regularly identified during excitation of any system (dashed) and have specifically typical analogues (fig.2).

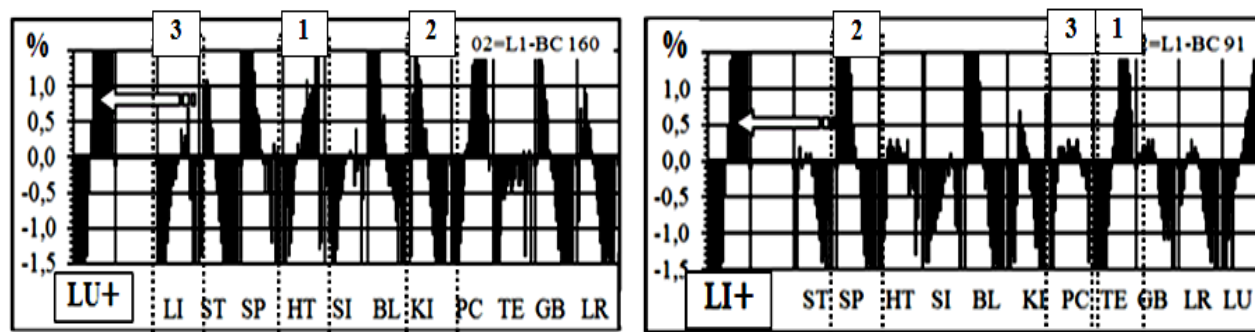


Fig.2 Types of systemic dependency during excitation of the channels LU, LI: synchronous (1), asynchronous (2), paradoxical (3).

## 2. System-complex dependency as biophysical reality

The marked repetitions (analogues) of three types of dependency (synchronous, asynchronous and paradoxical) testify to the presence of unknown functional complexes. In order to be sure in its biophysical reality, we grouped systems according to uniform reactions on excitation of various channels. Taking into account the principle value of the problem, let us observe it through the prism of examination materials in female (1) and male (2) groups (fig.3-6).

The performed analysis allows stating the following.

1. Specificity of system-complex dependency is its synchronicity of reaction of separate systems to excitation (oppression) of any of them.

2. Uniformity of biophysical reactions points out compositional parts of four functional complexes (FC): **BL-SP** (FC-1); **LI-TE-SI** (FC-2); **LU-PC-HT** (FC-3) and **ST-GB-KI-LR** (FC-4).

Let us observe the peculiarity of formation of complexes during rising activity of their separate representatives (BL, LI, LU, ST) in mixed by age female ( $\Delta$ ) and male (X) groups.

**Let us start at first from the analysis of excitation of functional system of the first complex - BL (fig.3).**

The presented materials attract attention by their uniformity of biophysical response to excitation of BL from functional system-complexes: synchronous (internal-complex)

excitation of SP and asynchronous oppression of LI-TE-SI, LU-PC-HT and ST-GB-KI-LR.

Similarity of system response directly points to biophysical specificity of the first complex and reality of other functional groups.

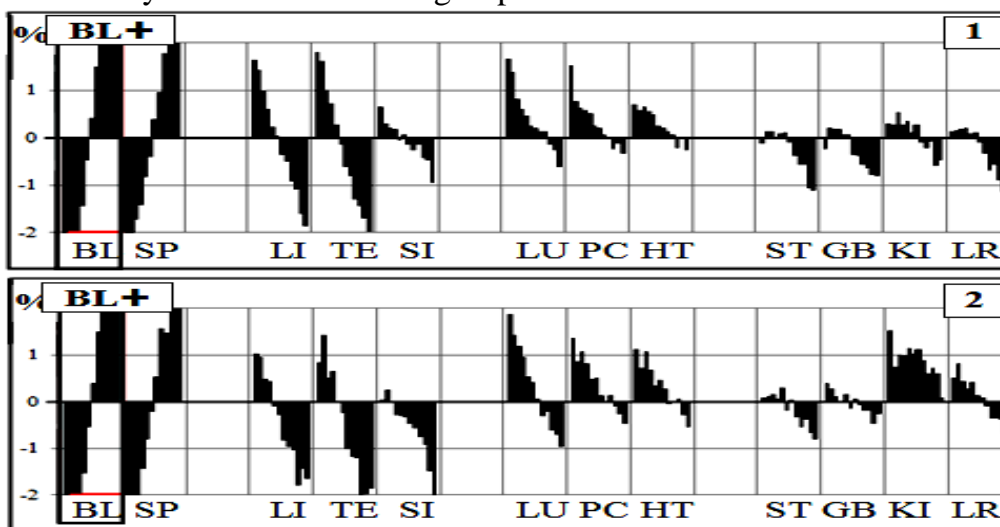


Fig.3 Complex dependency during excitation of **BL** in female (1) and male (2) groups

**Let us take a look at complex reactions to excitation of functional system LI (FC-2; fig.4).**

The presented materials attract attention by differently directed biophysical response to the growth of its activity from the side of separate complexes: synchronous growth of activity of internal-complex systems (TE-SI) and channels of the third functional complex LU-PC-HT; asynchronous oppression of functional systems of the first (BL-SP) and fourth (ST-GB-KI-LR) complexes.

We should mark also the first signs of complex paradoxical reactions. For instance, to excitation of LI paradoxically react functional systems PC-HT (second complex) and in prevailing number of cases ST-GB-LR (fourth complex). Thus, similarity of system response directly points to biophysical peculiarity of the second complex and reality of other functional groups.

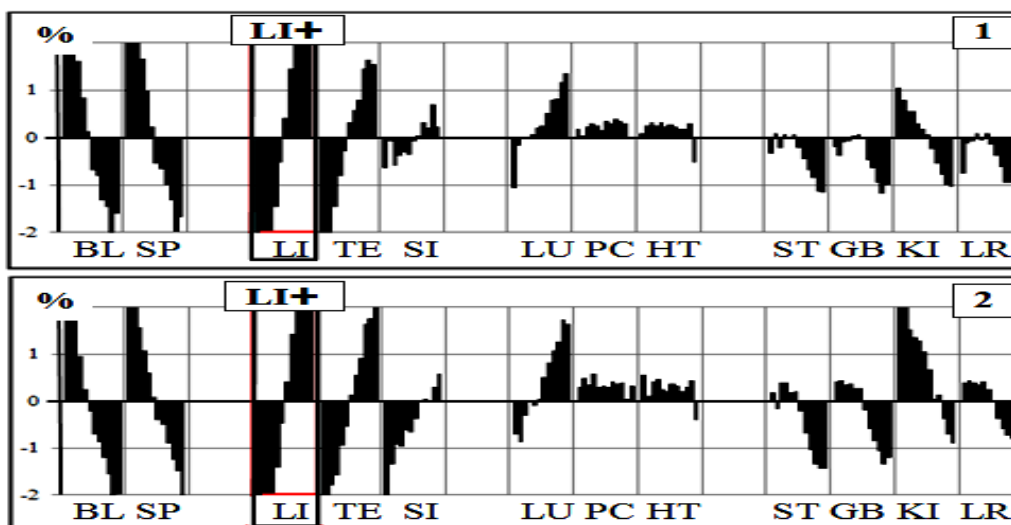


Fig.4 Complex dependency during excitation of **LI** in female (1) and male (2) groups

**Let us observe complex reactions to excitation of functional system LU (FC-3; fig.5).**

The presented materials are interesting for their differently directed response to the growth of its activity from the side of separate complexes: synchronous growth of activity of internal-complex systems (PC-HT) and channels of the second functional complex LI-TE-SI; asynchronous oppression of functional systems of the first (BL-SP) and fourth (ST-GB-KI-LR) complexes. We should mark also the first signs of paradoxical reactions from the side of functional systems of the second complex TE-SI. Thus, similarity of systemic response directly points to biophysical peculiarity of the third complex and reality of other functional groups.

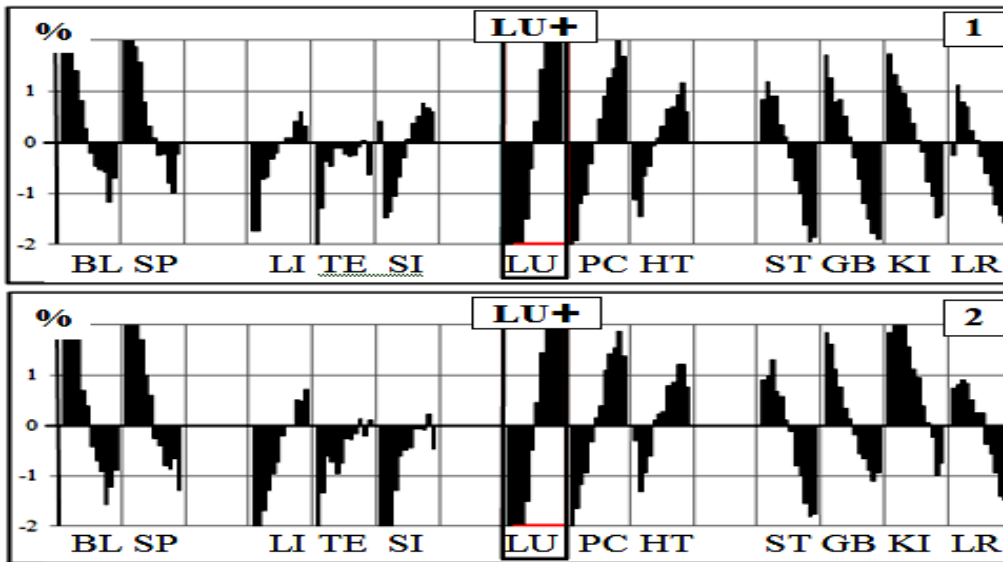


Fig.5 Complex dependency during excitation of LU in female (1) and male (2) groups

**Let us observe complex reactions to excitation of the functional system ST (FC-4; fig.6).**

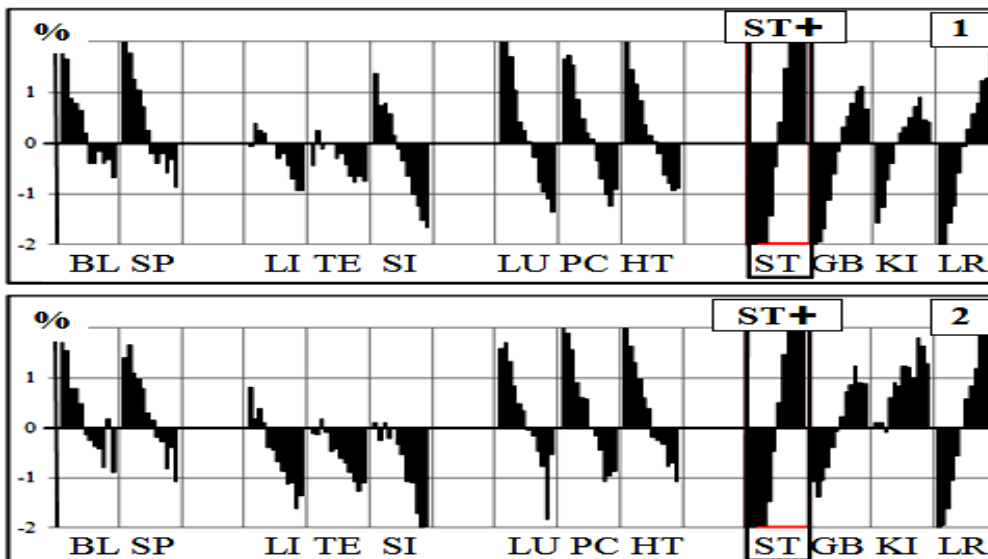


Fig.6 Complex dependency during excitation of ST in female (1) and male (2) groups.

The presented materials attract attention by differently directed biophysical response from the side of separate complexes: synchronous growth of activity of internal-complex systems (GB-KI-LR) and asynchronous oppression of functional systems of the

first (BL-SP), second (LI-TE-SI) and third (LU-PC-HT) complexes. It should be marked once more, that the essence of paradoxical reactions is in synchronous excitation (oppression) with the system of control to the zone of its functional norm with further paradoxical oppression (excitation). Later, biophysical meaning of paradoxical reactions, as the basic mechanism in regulation of dynamic stability of functional-vegetative homeostasis, will be clear.

**2.And now another question: is there a difference between reactions to excitation and oppression of the system of influence?**

The discovered system-complex dependency conditioned the issue of reaction of the traditional channels to excitation and oppression of the same system (fig. 7.1-2).

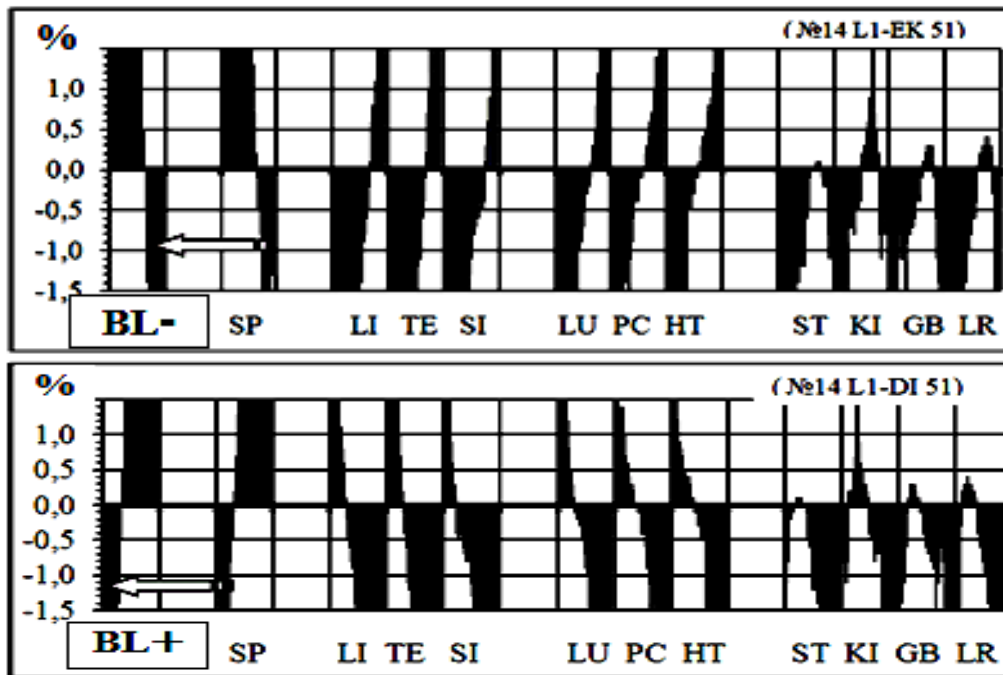


Fig.7.1 System reactions to excitation (+) and oppression (-) of the channel BL and LI in mixed by gender group

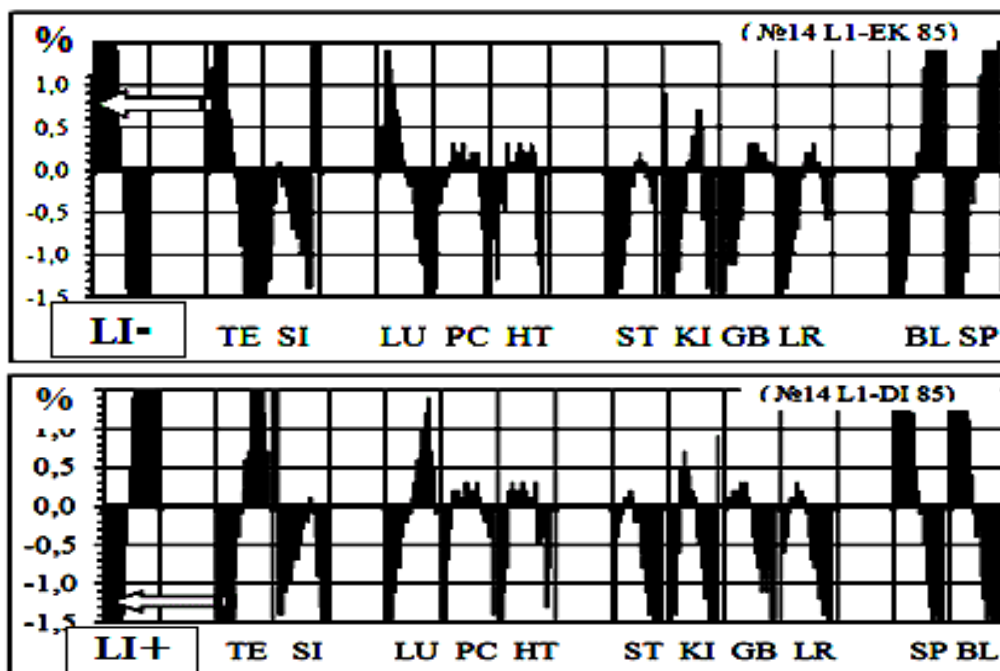


Fig.7.2 System reactions to excitation (+) and oppression (-) of the channel **BL** and **LI** in mixed by gender group

Data analysis testifies to identical opposition of system reactions, which further allows observing any variant of dependency only on excitation of the channel under control (by the way, the approach significantly simplifies the system of further scientific search).

### 3.Reaction of one system to excitation of other channels

Analysis of the following material (fig.8) allows making definite conclusion: any functional system (acupunctural channel) provides three functional responses to excitation of other channels (synchronous excitation, asynchronous oppression and paradoxical reactions).

The discovered biophysical phenomenon leads to the basic specific conclusion: every system takes an appropriate part in maintaining dynamic stability of functional equilibrium, preventing shifts.

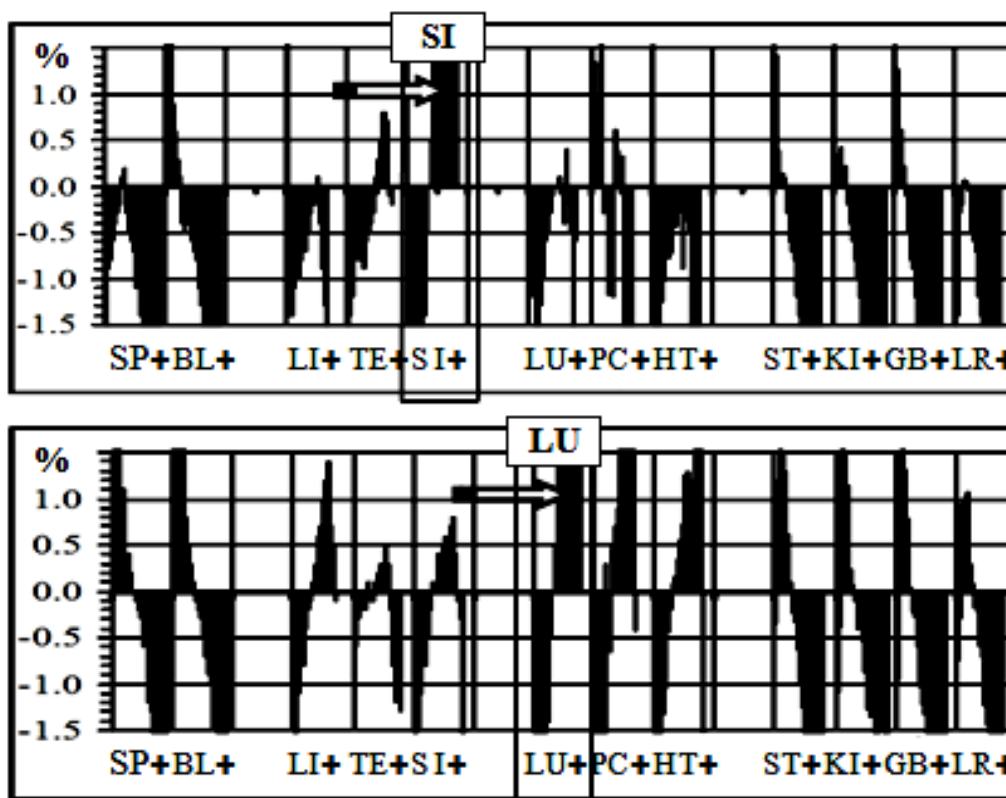


Fig.8 Reactions of SI and LU to excitation of various channels (mixed group).

### Conclusion

- 1.The phenomenon of traditional acupuncture channels and their functional complexes was interconnected biophysical reality
- 2.The discovered biophysical phenomenon leads to the basic specific conclusion: every system takes an appropriate part in maintaining dynamic stability of functional equilibrium, preventing shifts.

### References

1. Вогралик Вадим Gabrieэлевич, Вогралик Михаил Вадимович. Пунктурная рефлексотерапия (Чжень-цзю) : монография / В. Г. Вогралик, М. В. Вогралик. – Горький, Волго-Вятское книжное издательство, – 1988. – 335 с. – ISBN 5-7420-0073-1

2. Дубровин Денис Александрович. Трудные вопросы классической китайской медицины (трактат Наньцзин) : монография / Д. А. Дубровин. – Л., Аста Прес, 1991, 223 с. – ISBN 5-85-962-001-02
3. Иглоукальвание (перевод с вьетнамского). : монография / под общей редакцией Хоанг Бао Тяо, Ла Куанг Ниеп. – М., Медицина, 1988. – 672 с. – ISBN 5-225-00299-4
4. Мачерет Евгения Леонидовна, Лысенюк Виктор Павлович, Самосюк Иван Захарович. Атлас акупунктурных зон : монография / Е. Л. Мачерет, В. П. Лысенюк, И. З. Самосюк. – К. : "Вища школа", 1986. – 256 с.
5. Мачерет Евгения Леонидовна, Самосюк Иван Захарович. Руководство по рефлексотерапии : монография / Е. Л. Мачерет, И. З. Самосюк. – К.: "Вища школа", 1982. – 305 с.
6. Овечкин Алексей Михайлович. Основы Чжень-цзю терапии : монография / А. М. Овечкин; под ред. проф. В. Г. Вогралика. – Саранск, Голос, 1991. – 416 с. – ISBN 5-7585-0007-0
7. Портнов Фома Григорьевич. Электростимуляционная рефлексотерапия : монография / Ф. Г. Портнов. – Рига, Зинатне, 1988. – 352 с. – ISBN 5-7966-0132-6
8. Табеева Дина Мухамедовна. Руководство по иглорефлексотерапии : монография / Д. М. Табеева. – М., Медицина, 1980. – 560 с.
9. Чжу-Лянь. Руководство по современной Чжень-цзю терапии (иглоукальвание и прижигание) : монография / Чжу-Лянь. – М., Госиздат. мед. литературы, 1959. – 270 с.
10. Лисогор, В. М. Побудова математичної моделі активності меридіанів людини методами математичної статистики / В. М. Лисогор, В. Г. Макац, А. І. Власюк // Вісник Вінницького політехнічного інституту. — 1999. — №. 4. — С. 5—9.
11. Власюк, А. І. Автоматизована система контролю активності акупунктурної системи людини / А. І. Власюк // Вісник Вінницького політехнічного інституту. — 1999. — №. 5. — С. 21—27.
12. Власюк А. І. Система контролю активності акупунктури людини [Електронний ресурс] : автореф. дис. на здобуття канд. тех. наук : спец. 05.11.16 «Інформаційно-вимірвальні системи» / Власюк Анатолій Іванович ; Вінницький державний технічний університет. – Вінниця, 1999. – 18 с. Режим доступу: <http://ir.lib.vntu.edu.ua/bitstream/handle/123456789/9003/REFERAT.pdf?sequence=1&isAllowed=y>
13. Власюк, А. І. Автоматизована віртуальна система діагностики стану організму людини А. І. Власюк, В. І. Месюра, Б. А. Власюк // Вісник Вінницького політехнічного інституту. — 2004. — №. 3. — С. 71—75.
14. Власюк, А. І. Вибір базової медичної технології для систем телемоніторингу / А. І. Власюк, С. А. Яремко, Б. А. Власюк // Вісник Вінницького політехнічного інституту. — 2005. — №. 1. — С. 69—76.
15. Лисогор, В. М. Математична модель оцінки впливу суттєвих факторів на стан здоров'я людини для систем медичного телемоніторингу / В. М. Лисогор, А. І. Власюк, С. А. Яремко // Вісник Вінницького політехнічного інституту. — 2007. — №. 3. — С. 5—13.
16. Anatomical atlas of Chinese acupuncture points: monograph / The Cooperative Group of Shandong Medical College and Shandong College of Traditional Chinese Medicine. – Shandong science and technology press. – Jinan, China, 1982. – 265 s.
17. Illustrated dictionary of Chinese acupuncture / Zhang Rui-fu, Wu Xiu-fen, Nissi S. Wang. – Beijing College of Traditional Chinese Medicine. China, [1982]. – 408 s. – ISBN 962-06-0287-0
18. Konig Georg, Wancura Ingrid. Praxis und Theorie der Neuen Chinesischen akupunktur. Band 1 / G. Konig, I. Wancura. –Wien-Munchen-Bern,1979, – 402 s. – ISBN 3-85175-294-5
19. Wancura Ingrid. Praxis und Theorie der Neuen Chinesischen akupunktur. Band 2 : monograph / I. Wancura. – Wien-Munchen-Bern,1983, – 342 s. – ISBN 3-85175-295-3
20. Namikoshi Tokujiro/ Shiatsu (Japanese Finger Pressure Therapy) : monograph / T. Namikoshi. – Japan publications, INC. Printed in U.S.A. – 1988. – 82 s. – ISBN 0-87040-169-6
21. Katsusuke Serizawa/ Effective tsudo therapy : monograph / S. Katsusuke. – Japan publications, INC. – 1984. – 240 s. – ISBN 0-87040-581-0