GENERAL PATHOLOGY AND PATHOPHYSIOLOGY

Energy Imbalance as Typical Patho- and Sanogenic Response in Nervous Diseases

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Energy imbalance was studied in patients with cerebrovascular pathology, autonomic nervous disorders of various orirgin, menopausal pathologies, latent symptoms of craniocerebral trauma, and neurological symptoms of vertebral osteochondrosis. The results indicate that signs of energy imbalance presented by three types of pathogenetic and sanogenetic responses were similar in all diseases irrespective on their pathogenesis.

Key Words *nervous disease*; *energy imbalance*; *channel-meridian system*

Treatment of nervous diseases should be aimed at their pathogenic mechanism, while rehabilitation and prophylactics should be focused at mobilization of intrinsic sanogenic response of the organism [5, 6]. Much progress in improving medical care and rehabilitation can be achieved, if the problem is considered from the viewpoint of the whole organism and patho- and sanogenetic responses in the main regulatory and functional systems of the body. Channel and meridional system (CMS) is responsible for regulation of energy metabolism [8,9,11] and responds to all pathologic or physiological shifts in the organism [1,7,12,13]. Since Western and Oriental medicine have different philosophic basis, changes in CMS occurring during various diseases classified according to Western nosology are poorly studied [1,11,14,15]. This stimulated our interest to this subject.

Our aim was to study the peculiarities of energy imbalance (EI) in CMS during nervous diseases.

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MATERIALS AND METHODS

A total of 730 patients (nonselected) with vertebrogenic and non-vertebrogenic nervous diseases: osteochondrosis (n=360), cerebrovascular disorders (n=110); autonomic nervous disorders of different genesis (n=220), delayed symptoms of craniocerebral trauma (n=70), and pathologic menopause symptoms (n=75) were examined.

Diagnosis was based on neurological and vertebroneurologic investigation, X-ray and manual examination, and instrumental investigation (when necessary). Status of the autonomic nervous system was determined using Vein's clinical tables [3], tilt-test, pulsometry, computer analysis of *RR*-intervalogram [2], and thermovisual topography. Energy balance in CMS was assessed by traditional acupuncture including special inquiry and examination, kinesthetic diagnosis of *shu* and *mo* points, and channel-controlling points and by traditional pulse diagnostics [4,8,10-12,15]. In addition, we used. Foll's method [10] for measurement of energy capacity and electrical conductivity of acupoints.

RESULTS

In the course of acupuncture examination, *yang*, *yin*, or *yang-yin* EI syndromes were observed in 100% patients with various nervous diseases (Fig. 1).

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Table 1. Occurrence of EI (%) in Channels (Meridians) of the Major Energy Circulation System (First Level of Regulation) during Nervous Diseases (*M*±*m*)

Meridian	Disease				
	NSO (*n*=360)	CVD (*n*=110)	VDS (*n*=115)	LSCT (*n*=70)	MS (*n*=75)
Lungs (P)	56.4±2.6	63.6±4.5	64.3±4.4	100.0±0	29.3±5.2
Large intestine (GI)	54.7±2.6	63.6±4.5	25.2±4.0	38.5±5.8	51.4±5.7
Stomach (E)	46.9±2.6	63.6±4.5	28.7±4.2	69.2±5.5	99.9±0.1
Spleen-pancreas (RP)	45.6±2.6	63.6±4.5	29.6±4.2	15.4±4.3	99.9±0.1
Heart (C)	41.2±2.5	27.3±4.2	51.7±4.6	73.1±5.3	69.0±5.3
Small intestine (IG)	44.7±2.6	36.4±4.5	27.3±4.1	30.7±5.5	14.6±4.0
Urinary bladder (V)	95.6±1.0	63.6±4.5	52.5±4.6	100.0±0	57.3±5.7
Kidney (R)	95.6±1.0	63.6±4.5	50.0±4.6	100.0±0	82.2±4.4
Pericardium (MC)	61.4±2.5	54.5±4.7	100.0±0	79.9±4.7	99.9±0.1
Three heaters (TR)	62.5±2.5	54.5±4.7	88.5±2.9	84.6±4.3	99.9±0.1
Gallbladder (VB)	83.6±1.9	63.6±4.5	57.5±4.6	23.1±5.0	95.5±2.4
Liver (F)	81.9±2.0	63.6±4.5	51.3±4.6	11.5±3.8	82.3±4.4

Note. Here and in table 2: NSO: nervous symptoms of osteochondrosis; CVD: cerebrovascular disorders; AND: autonomic nervous disorders; DSCT: latent symptoms of craniocerebral trauma; and MS: menopausal symptoms.

Table 2. Occurrence of EI (%) in Levels II-V of CMS Regulation in Various Nervous Diseases (*M*±*m*).

Level of Regulation		NSO (*n*=360)	CVD (*n*=110)	VDS (*n*=115)	LSCT (*n*=70)	MS (*n*=75)
Couped channels	P—GI	45.2±1.0	18.2±3.7	25.4±4.0	38.5±5.8	33.8±5.4
	E—RP	50.8±2.6	100.0±0	24.6±4.0	15.4±4.3	24.3±4.9
	C—GI	39.7±2.5	90.9±1.5	31.2±4.3	30.8±5.5	28.4±5.2
	V—R	82.2±2.0	81.8±3.7	30.3±4.3	100.0±0	86.5±3.9
	MC—TR	77.8±2.2	90.9±1.5	68.2±4.3	76.9±5.0	82.4±4.3
	VB—F	76.1±2.2	100.0±0	32.5±4.4	11.5±3.8	59.5±5.6
"Up-and-down"' groups	V/IG	17.8±2.0	27.3±4.2	22.1±3.8	26.9±5.3	18.9±4.5
	E/GI	15.3±1.9	81.8±3.7	24.2±3.9	38.5±5.8	24.3±4.9
	TR/VB	29.7±2.4	100.0±0	57.5±4.6	69.2±5.5	50.0±5.7
	P/RP	10.0±1.6	72.7±4.2	29.6±4.2	11.5±3.8	43.2±5.7
	C/R	15.6±1.9	45.5±4.7	38.7±4.5	42.3±5.9	60.8±5.6
	MC/F	28.9±1.4	90.9±1.5	32.5±4.3	11.5±3.8	58.1±5.7
3 *yin* — 3 *yang* region						
GI—TR—IG		6.1±1.2	18.2±3.7	5.9±2.1	23.0±5.0	28.4±5.2
P—MC—C		1.9±0.7	27.3±4.2	7.3±2.4	15.4±4.3	60.8±5.6
F—RP—R		0.3±0.2	0	11.1±2.9	0	43.2±5.7
E—VB—F		11.7±1.6	0	7.9±2.5	19.2±4.7	24.3±4.9
Miraculous meridians	I	2.5±0.8	27.3±4.2	4.6±1.9	23.0±5.0	24.3±4.9
	II	4.9±1.2	27.3±4.2	17.5±3.5	19.2±4.7	16.2±4.2
	III	14.5±1.8	9.1±2.7	37.5±4.5	0	12.2±3.7
	IV	11.7±1.6	9.1±2.7	19.1±3.6	0	8.1±3.1
	V	4.3±1.0	18.2±3.7	15.4 ±3.3	15.4±4.3	85.1±4.1
	VI	8.3±1.4	18.2±3.7	9.2±2.7	23.0±5.0	8.1±3.1
	VII	30.2±2.4	27.3±4.2	21.8±3.8	11.5±3.8	43.2±5.7
	VIII	32.7±2.5	18.2±3.7	19.6±3.7	0	41.9±5.6

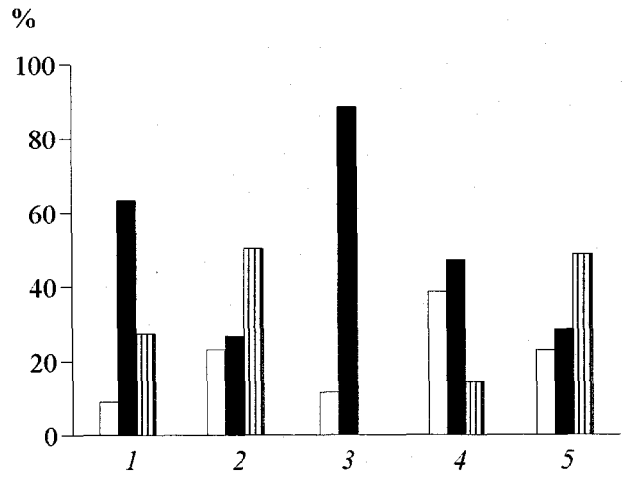

Fig. 1. Incidence (%) of *yang* (light bars), *yin* (dark bars), and *yang-yin* (shaded bars) syndromes in different neural pathologies: cerebrovascular disorders (*1*), autonomic nervous disorders (*2*), delayed symptoms of craniocerebral trauma (*3*), vertebral osteochondrosis (*4*), and menopausal symptoms (*5*).

Yang syndrome occurred more often ($p<0.05$) in patients with nervous symptoms of osteochondrosis, autonomic nervous disorders, and pathological menopausal symptoms, while *yin* syndrome prevailed in patients with cerebrovascular disorders and delayed symptoms of craniocerebral trauma ($p<0.05$, Fig. 1). Transitory *yang-yin* syndrome was observed in a half of patients with autonomic nervous disorders and menopausal symptoms. The described differences were associated with pathogenic and pathomorphological peculiarities of these diseases.

It was also found that all 5 levels of CMS regulation are more or less involved into EI associated with all neurological disorders: single channel level (I); coupled channels (II); "up-and-down" group (III); group of three channels of the region (IV); miraculous meridians (V) (Tables 1 and 2).

Thus, EI syndrome is typical of all nervous disease. Analysis of relations between qualitative and quantitative characteristics of EI and peculiarities of nervous diseases revealed three major types of responses in CMS: pathogenic responses which reflect the essence of the disease; sanogenic responses acting against pathologic processes and improving trophic function during aggravation; and local responses due to localization of the processes associated with neural pathology in tissues. These responses manifest themselves as universal functional impairment and imbalance in the regulatory systems and accompany all pathologic processes. Further studies of various diseases and analysis of mutual relationships between specific and nonspecific mechanisms will open a new way for improving rehabilitation treatment on the basis of adequate modification of nonspecific syndromes in patients with nervous disorders.

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