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CONDUCT OF SEMINAR COURSE "BASES OF TRADITIONAL DIAGNOSTICS FOR THE USE OF ACUPUNCTURE METHODS" IN THE REFLEXOTHERAPY CYCLE FOR STUDENTS IN THE SPECIALTY 227 "THERAPY AND REHABILITATION"

Abstract. This article is devoted to the methodology of conducting a seminar class "Fundamentals of traditional diagnostics" of the educational discipline of reflexology for students in the specialty 227 "Therapy and rehabilitation". It provides data on syndromic acupuncture diagnostics, traditional pulse diagnostics, and traditional tongue diagnostics.

Purpose. Consider the features of using syndromic acupuncture diagnostics, traditional pulse diagnostics, traditional tongue

diagnostics, which may find application in the practice of future physical therapists, occupational therapists.

Scientific novelty. For the first time in our country, the method of conducting a seminar class "Fundamentals of traditional diagnostics for the use of acupuncture methods" is being considered in the cycle of reflexotherapy for students in the specialty 227 "Therapy and rehabilitation".

Methods. We consider the features of the use of syndromic acupuncture diagnostics, traditional pulse diagnostics, and traditional tongue diagnostics, which may find application in the practice of future physical therapists and occupational therapists.

Results. As a result of the seminar class "Fundamentals of traditional diagnostics for the use of acupuncture methods" of the educational discipline of reflexology, students of the specialty 227 "Therapy and rehabilitation" will develop the skills of syndromic acupuncture diagnostics, traditional pulse diagnostics, traditional tongue diagnostics, which can be used in practice of future physical therapists, occupational therapists.

Conclusions. It is expedient to conduct a seminar class "Fundamentals of traditional diagnostics for the use of acupuncture methods" of the educational discipline of reflexology for students in the specialty 227 "Therapy and rehabilitation", which can provide an additional diagnostic approach in the diagnosis of diseases in the work of future physical therapists, occupational therapists.

Key words: rehabilitation, reflexotherapy, seminar class "Fundamentals of traditional diagnostics for the use of acupuncture methods", training of students in specialty 227 "Therapy and rehabilitation".

ПРОВЕДЕННЯ СЕМІНАРСЬКОГО ЗАНЯТТЯ «ОСНОВИ ТРАДИЦІЙНОЇ ДІАГНОСТИКИ ДЛЯ ВИКОРИСТАННЯ МЕТОДІВ АКУПУНКТУРИ» НА ЦИКЛІ З РЕФЛЕКСОТЕРАПІЇ У СТУДЕНТІВ ЗА СПЕЦІАЛЬНІСТЮ 227 «ТЕРАПІЯ ТА РЕАБІЛІТАЦІЯ»

Анотація. Ця стаття присвячена методології проведення семінарського заняття «Основи традиційної діагностики» навчальної дисципліни рефлексотерапії у студентів за спеціальністю 227 «Терапія та реабілітація». В ній наведено дані про синдромальну акупунктурну діагностику, традиційну діагностику по пульсу, традиційну діагностику по язику.

Мета. Розглянути особливості використання синдромальної акупунктурної діагностики, традиційної діагностики по пульсу, традиційної діагностики по язику, що можуть знайти застосування у практиці майбутніх фізичних терапевтів, ерготерапевтів.

Наукова новизна. Вперше в нашій країні розглядається методика проведення семінарського заняття «Основи традиційної діагностики для використання методів акупунктури» на циклі з рефлексотерапії у студентів за спеціальністю 227 «Терапія та реабілітація».

Методи. Ми розглядаємо особливості використання синдромальної акупунктурної діагностики, традиційної діагностики по пульсу, традиційної діагностики по язику, що можуть знайти застосування у практиці майбутніх фізичних терапевтів, ерготерапевтів.

Результати. В результаті проведення семінарського заняття «Основи традиційної діагностики для використання методів акупунктури» навчальної дисципліни рефлексотерапії у студентів за спеціальністю 227 «Терапія та реабілітація» з'являться навики синдромальної акупунктурної діагностики, традиційної діагностики по пульсу, традиційної діагностики по язику, що можуть знайти застосування у практиці майбутніх фізичних терапевтів, ерготерапевтів.

Висновки. Доцільно провести семінарське заняття «Основи традиційної діагностики для використання методів акупунктури» навчальної дисципліни рефлексотерапії у студентів за спеціальністю 227 «Терапія та реабілітація», що може дати додатковий діагностичний підхід при діагностиці захворювань у роботі майбутніх фізичних терапевтів, ерготерапевтів.

Ключові слова: реабілітація, рефлексотерапія, семінарське заняття «Основи традиційної діагностики для використання методів акупунктури», підготовка студентів за спеціальністю 227 «Терапія та реабілітація».

Topicality. An important predictor of the effective use of reflexology methods as part of the complex treatment of patients with any diagnosis is an individual approach to treatment based on the differentiated preparation of acupuncture prescriptions depending on the diagnostic data obtained on the basis of modern scientific knowledge and ideas of traditional Chinese medicine.

In order to analyze the patient's symptoms from the standpoint of traditional Chinese medicine, as well as to improve the effectiveness of reflexology methods in each patient, syndromic acupuncture diagnostics, traditional pulse diagnostics, and traditional tongue diagnostics are performed [3; 4].

The method of syndromic acupuncture diagnostics consists in the analysis of complaints and data of objective examination of patients, in addition, traditional diagnostics by pulse and traditional diagnostics by tongue are carried out according to the ideas of traditional Chinese medicine [1; 2; 3; 4].

Let's take a look at the data of acupuncture diagnostics; which we performed in patients with multiple sclerosis [7; 8; 9; 10; 11].

Presentation of the main material. 216 patients (75 men and 141 women) aged 21 to 62 years (average 39.9 \pm 9.7) with a diagnosis of multiple sclerosis according to the McDonald criteria (2005; 2010) with different forms of course (remitting and progressive) were examined. With a degree of disability from 1 to 5.5 points according to the EDSS with and without concomitant diseases. The comparison group consisted of 157 people (70 men and 87 women), including 34 patients with the consequences of acute diffuse encephalomyelitis, as well as 123 practically healthy people, whose average age was 38.5 \pm 6.2 and 35.3 \pm 10.1 years, respectively.

A retrospective analysis of 115 disease histories of patients with multiple sclerosis and 115 disease histories of patients with acute diffuse encephalomyelitis was also conducted to determine the most characteristic symptoms of damage to the nervous system in both diseases, risk factors for the development of multiple sclerosis, and the nature of concomitant pathology. All patients with multiple sclerosis were analyzed for comorbidity, depending on the presence or absence of comorbid pathology.

All patients with multiple sclerosis were divided into two groups:

- I group 109 (50.5%) patients without concomitant diseases;
- II group 107 (49.5%) patients with concomitant diseases

The II group consisted of 107 patients with multiple sclerosis, who at the time of the examination had a clinically significant comorbid pathology, data on which were revealed through a detailed survey of patients regarding concomitant diseases, during an objective

examination and analysis of medical documentation. At the same time, in the group with comorbidities, 40 (18.5%) patients with multiple sclerosis had one comorbidity, 27 (12.5%) – two comorbidities, 21 (9.7%) – three comorbidities, and 19 (8, 8%) – four or more concomitant diseases.

The clinical condition of the patients was described in accordance with the FS scale, and degree of severity of neurological deficit – based on research data on the EDSS scale [6].

According to the assessment of the research data on the EDSS scale, a mild degree of severity (0–2.5 points) occurred in 101 (46.8%) of the examined patients with multiple sclerosis, an average degree (3.0–5.5 points) – in 115 (53.2%) patients with multiple sclerosis, and patients with a severe degree of multiple sclerosis according to the exclusion criteria were not included in the study group. The average score according to the EDSS score was 3.8 ± 1.3 in the examined patients with multiple sclerosis (table 1).

Table 1
General clinical characteristics of the severity
and forms of the course of multiple sclerosis
in the examined patients of the general sample

| in the examined purious of the general sample | | | | | | | |
|---|---|--|--|--|--|--|--|
| No | Indicator | Patients with multiple sclerosis were examined (n = 216) | | | | | |
| 1. | Degree of disability for the EDSS scale, points (m ± CB): light average severe group average: | 46,8% 53,2% - 3,8 ± 1,3 | | | | | |
| Type of course of multiple sclerosis (%) | | | | | | | |
| 2. | Remitting Relapsing-remitting multiple sclerosis Relapsing-progressive multiple sclerosis | 64,4% 42,6% 21,8% | | | | | |
| 3. | Progressive Primary progressive multiple sclerosis Secondary progressive multiple sclerosis | 33,6% 20,8% 14,8% | | | | | |

When conducting syndromic acupuncture diagnostics according to the ideas of traditional Chinese medicine, all examined (216, 100%) patients with multiple sclerosis were diagnosed with three dominant syndromes of traditional Chinese medicine, which were identified as the main ones: "Spleen CHI deficiency" (group I – 37, 33.9% of patients; group II – 45, 45.1%), "INF deficiency of the liver and kidneys" (group I – 39, 35.8% of patients; group II – 30, 28.0%), "Stagnation CHI of the liver" (group I – 33, 30.3% of patients,

group II – 32, 29.9%), (table 2). Thus, in group II, in comparison with group I, there were significantly more patients with the syndrome of traditional Chinese medicine "Deficiency of CHI of the spleen" (p < 0.05), significantly less frequently – with the syndrome of traditional Chinese medicine "YIN deficiency of the liver and kidneys" (p < 0.05) and relatively evenly – with the syndrome of traditional Chinese medicine "Congestion of the liver" (p > 0.05) (table 2).

Table 2
Analysis of the prevalence of the main syndromes
of traditional Chinese medicine in patients with
multiple sclerosis

| med | Syndromes traditional Chinese licine in patients with multiple sclerosis | I group, % | II group, % | Total, % |
|---------------|---|------------------|-------------------|-------------|
|] <u>.</u> E | "Spleen CHI deficiency" | 33,9% | 42,2%* | 38,0% |
| The main ones | "YIN deficiency of the liver and kidneys" | 35,8%* | 28,0% | 31,9% |
| F | "Congestion CHI liver" | 30,3% | 29,9% | 30,1% |

Note: * p<0.05 is the level of significance of differences in the prevalence of the main syndromes of traditional Chinese medicine in comparison between groups I and II.

The nature of the influence of the syndromes of traditional Chinese medicine on the course of the main neurological manifestations of multiple sclerosis is shown in table 3.

Among the clinical neurological symptoms of the syndrome of traditional Chinese medicine "Spleen CHI deficiency" in multiple sclerosis patients of both groups were: muscle weakness in the limbs (95.1%), mainly

in the form of paraparesis (30.5%) and tetraparesis (26.8%), muscle hypotonia (51.2%), numbness in the distal parts of the limbs with an objective disturbance of sensitivity (65.9%), fatigue (58.5%), depression (52.4%), daytime sleepiness (41.5%); among general clinical manifestations – decreased appetite (76.8%), periodic spasmodic pain in the epigastrium (58.5%), pale skin color (62.1%), tendency to flatulence and loose stools (59.8%); tendency to lose weight (47.5%), visceroptosis (30.5%). During pulse diagnostics, a slow (81.7%) and weak (76.8%) pulse was mostly determined. During tongue diagnosis, the tongue was mostly pale in color (86.5%) with a thin white coating.

Among the clinical neurological symptoms of the syndrome of traditional Chinese medicine "Spleen CHI deficiency" in multiple sclerosis patients of both groups were: muscle weakness in the limbs (95.1%), mainly in the form of paraparesis (30.5%) and tetraparesis (26/8%), muscle hypotonia (51.2%), numbness in the distal parts of the limbs with an objective disturbance of sensitivity (65.9%), fatigue (58.5%), depression (52.4%), daytime sleepiness (41.5%); among general clinical manifestations - decreased appetite (76.8%), periodic spasmodic pain in the epigastrium (58.5%), pale skin color (62.1%), tendency to flatulence and loose stools (59.8%); tendency to lose weight (47.5%), visceroptosis (30.5%). During pulse diagnostics, a slow (81.7%) and weak (76.8%) pulse was mostly determined. During tongue diagnosis, the tongue was mostly pale in color (86.5%) with a thin white coating.

Among the clinical neurological symptoms of the syndrome of traditional Chinese medicine "YIN deficiency of the liver and kidneys" in patients with multiple sclerosis of both groups, there were mainly

Table 3

The nature of the influence of the main syndromes of traditional Chinese medicine on the course of neurological manifestations of multiple sclerosis

| Nature of clinical neurological symptoms of multiple sclerosis | | Data of syndromal acupuncture diagnostics according to the concepts of traditional Chinese medicine (main syndromes) in patients with multiple sclerosis (n = 216) | | | | |
|--|--------------|--|--|---------------------------------|-------|--|
| | | "Spleen CHI deficiency" (n = 82) | "YIN deficiency of the liver and kidneys" (n = 69) | "Congestion CHI liver" (n = 65) | Total | |
| Violation of muscle tone | missing | 17,6%* | 9,3%* | - | 26,9% | |
| | hypertension | - | 19,0%* | 20,8%* | 39,8% | |
| | hypotension | 19,4%* | 18,7% | 3,7% | 24,1% | |
| | dystonia | 0,9% | 2,3% | 5,6%* | 9,3% | |
| Form of central paresis | missing | 2,8% | 3,7% | 5,1% | 11,6% | |
| | monoparesis | 8,3%* | 4,2% | 3,2% | 15,7% | |
| | paraparesis | 11,6% | 19,4%* | 10,7% | 41,7% | |
| | hemiparesis | 3,2% | 0,9% | 5,6%* | 8,8% | |
| | triparesis | 1,9% | 0,05% | 2,8% | 7,4% | |
| | tetraparesis | 10,2% * | 3,2% | 2,8% | 16,2% | |

Примітка: * – рівень значущості відмінностей показників поширення основних синдромів традиційної Китайської медицини у загальній вибірці хворих на розсіяний склероз, р < 0,05.

muscle-tonic, vestibulo-ataxic, oculomotor and visual symptoms: muscle weakness in the limbs (87.0%), mainly in the form of paraparesis (60.9%), muscle spasticity (59.4%), staggering when walking (82.6%), dizziness (76.8%), dizziness (71.0%), noise in the ears and in the head (62.3%), periodic appearance of a "veil" before the eyes, impaired clarity of focus, diplopia (81.1%), impaired visual acuity (75.4%), impaired color perception (46, 4%); among general clinical manifestations psychological symptoms (92.8%), tachycardia (88.4%), irritability (85.5%), frequent flushes of blood to the face (84.0%), chronic constipation (44.9%), periodic spasmodic pains in the right hypochondrium (53.6%), dysmenorrhea in women (37.7%). When conducting a pulse diagnosis, fast (88.4%) and filamentous (73.9%) pulses were mainly determined. During tongue diagnosis, the tongue was mostly red with a reduced amount of plaque (79.7%).

Among the clinical neurological symptoms of the syndrome of traditional Chinese medicine "Congestion of the liver" in patients with multiple sclerosis of both groups, there was mainly muscle weakness in the limbs (81.5%), mainly in the form of paraparesis (35.9%) and hemiparesis (16.9%), muscle spasticity (69.2%), vagotonia with a subjective feeling of coldness in the hands and feet, which was confirmed by objective examination (86.1%) and a tendency to bradycardia (83.1%), dysesthesias, paresthesias and pains of various localization (80.0%), significant emotional lability with rapid and frequent transitions from irritability to depression (76.9%), sleep disturbances (69.2%); among the general clinical manifestations – a decrease in appetite (75.4%), frequent belching of air (69.2%), a feeling of discomfort in the throat associated with a subjective feeling of a foreign body in the pharynx (58.5%); feeling of heaviness and discomfort in the costal and subcostal area on the right (72.3%), dysmenorrhea with the presence of premenstrual syndrome in women (47.7%). During the pulse diagnosis, a slow (83.1%) and intense (78.5%) pulse was mostly determined. When diagnosing the tongue, the tongue was mostly dark red, with burgundy or purple spots, covered with a thin layer of white plaque (73.9%). Among the clinical neurological symptoms of the syndrome of traditional Chinese medicine "Congestion of the liver" in patients with multiple sclerosis of both groups, there was mainly muscle weakness in the limbs (81.5%), mainly in the form of paraparesis (35.9%) and hemiparesis (16.9%), muscle spasticity (69.2%), vagotonia with a subjective feeling of coldness in the hands and feet, which was confirmed by objective examination (86.1%) and a tendency to

bradycardia (83.1%), dysesthesias, paresthesias and pains of various localization (80.0%), significant emotional lability with rapid and frequent transitions from irritability to depression (76.9%), sleep disturbances (69.2%); among the general clinical manifestations – a decrease in appetite (75.4%), frequent belching of air (69.2%), a feeling of discomfort in the throat associated with a subjective feeling of a foreign body in the pharynx (58.5%); feeling of heaviness and discomfort in the costal and subcostal area on the right (72.3%), dysmenorrhea with the presence of premenstrual syndrome in women (47.7%). During the pulse diagnosis, a slow (83.1%) and intense (78.5%) pulse was mostly determined. When diagnosing the tongue, the tongue was mostly dark red, with burgundy or purple spots, covered with a thin layer of white plaque (73.9%).

Thus, the use of syndromic acupuncture diagnostics in patients with multiple sclerosis showed that the general sample was dominated by the syndromes of traditional Chinese medicine, which were due to the involvement of the organs of the digestive system in the pathological process, that 28 patients of the II group manifested gastroenterological comorbidity, and the rest of the patients had subclinical, or was not diagnosed. Among the movement disorders in the presence of the syndrome of traditional Chinese medicine "Spleen OR deficiency", in contrast to other syndromes of traditional Chinese medicine, tetraparesis (p < 0.05), monoparesis (p < 0.05) and muscle hypotonia (p < 0.05), while muscle spasticity was absent at all; in the case of the presence of the syndrome of traditional Chinese medicine "YIN deficiency of the liver and kidneys" - lower paraparesis was significantly more common (p < 0.05); in the case of the presence of TCM syndrome "Congestion of the liver" - hemiparesis (p < 0.05) and muscle dystonia (p < 0.05) were significantly more common, while there were no patients with the absence of muscle tone disorders at all. The use of syndromic acupuncture diagnostics in patients with multiple sclerosis led to the discovery of heterogeneity among neurologically identical patients, which made it possible to apply differentiated approaches to their acupuncture and allopathic treatment.

Conclusions. It is expedient to conduct a seminar class "Fundamentals of traditional diagnostics for the use of acupuncture methods" of the educational discipline of reflexology for students in the specialty 227 "Therapy and rehabilitation", which can provide an additional diagnostic approach in the diagnosis of diseases in the work of future physical therapists, occupational therapists.

Bibliography:

- 1. Свиридова Н., Чуприна Г., Парнікоза Т. [та ін.] Вибрані питання застосування методів рефлексотерапії у лікуванні больових синдромів [Посібник для лікарів-слухачів закладів (факультетів) післядипломної освіти]. К. : ТОВ «Тропеа», 2023. 202 с.
- 2. Свиридова Н., Морозова О., Чуприна Г.[та ін.] Рефлексотерапія: підручник за ред. Н. К. Свиридової, О. Г. Морозової. К.: ТОВ «Тропеа», 2023. Т. 4. 220 с.
 - 3. Chinese acupuncture and moxibustion. Beijing: Foreign languages press, 1987. 554 p.
 - 4. Chinese acupuncture and moxibustion. Sanghai: Publishing house of Sanghai University of TCM, 2002. 371 p.
- 5. Complementary and alternative medicine in multiple sclerosis. Report of the Guideline Development Subcommittee of the American Academy of Neurology: evidence-based guideline / V. Yadav, C. Bever, J. Bowen [et al.]. New York: American Academy of Neurology, 2013. 46 p.
- 6. Kurtzke J. F. Rating neurologic impairment in multiple sclerosis: an expanded disability status scale (EDSS). *Neurology*. 1983. Vol. 33, № 11. P. 1444–1452.
- 7. Multiple sclerosis rehabilitation. From impairment to participation. / M. Finlayson [et al.]; eds. M. Finlayson. London, New York: CRC Press, 2013. 560 p.
- 8. Physiotherapy rehabilitation for people with progressive multiple sclerosis: a systematic review/ E. Campbell, E. H. Coulter, P. G. Mattison [et al.]. Arch. of phys. med. and rehabil. 2016. Vol. 97. P. 141–151.
- 9. Symptomatic therapy in multiple sclerosis: a review for a multimodal approach in clinical practice / J. C. Correia de Sa, L. Airas, E. Bartholome [et al.]. *Ther. adv. neurol. disord.* 2011. № 4. P. 139–168.
- 10. Use of complementary and alternative medicine among people with multiple sclerosis in the nordic countries [Електронний pecypc] / L. Skovgaard, P. H. Nicolajsen, E. Pedersen [et al.]. *Hindawi publish. corp. autoim. diseases.* Vol. 2012. P. 1–13. URL: https://www.hindawi.com/journals/ad/2012/841085/
- 11. Use of therapies other than disease-modifying agents, including complementary and alternative medicine, by patients with multiple sclerosis: a survey study / S. S. Stoll, C. Nieves, D. S. Tabby [et al.]. *Journ. of the Amer. osteopat. associat.* 2012. Vol. 112, N^0 1. P. 22–28.

References:

- 1. Svyrydova N., Chupryna G., Parnikoza T. et al. (2023). Vybrani pytannya zastosuvannya metodiv refleksoterapii u likuvanni bolovych syndromiv [Selected issues of the application of reflexology methods in the treatment of pain syndromes: guide for doctors-students of institutions of postgraduate education]. Kyiv: TOV TROPEA, 202 p. [in Ukrainian].
- 2. Svyrydova N., Morozova O., Chupryna G. M. et al. (2023). Refleksoterapiya: pidruchnyk [Reflexotherapy: textbook]. Kyiv: TOV TROPEA, V. 4, 220 p. [in Ukrainian].
 - 3. Chinese acupuncture and moxibustion (1987). Beijing: Foreign languages press, 554 p.
 - 4. Chinese acupuncture and moxibustion (2002). Sanghai: Publishing house of Sanghai University of TCM, 371 p.
- 5. Complementary and alternative medicine in multiple sclerosis. Report of the Guideline Development Subcommittee of the American Academy of Neurology: evidence-based guideline (2013). / V. Yadav, C. Bever, J. Bowen [et al.]. New York: American Academy of Neurology, 46 p.
- 6. Kurtzke J. F. (1983). Rating neurologic impairment in multiple sclerosis: an expanded disability status scale (EDSS) / J. F. Kurtzke // Neurology. 1983. Vol. 33, № 11. P. 1444–1452.
- 7. Multiple sclerosis rehabilitation. From impairment to participation (2013). / M. Finlayson [et al.]; eds. M. Finlayson. London, New York: CRC Press, 560 p.
- 8. Physiotherapy rehabilitation for people with progressive multiple sclerosis: a systematic review (2016). / E. Campbell, E. H. Coulter, P. G. Mattison [et al.] // Arch. of phys. med. and rehabil. Vol. 97. P. 141–151.
- 9. Symptomatic therapy in multiple sclerosis: a review for a multimodal approach in clinical practice (2011) / J. C. Correia de Sa, L. Airas, E. Bartholome [et al.] // Ther. adv. neurol. disord. № 4. P. 139–168.
- 10. Use of complementary and alternative medicine among people with multiple sclerosis in the nordic countries [Electronic resource] / L. Skovgaard, P. H. Nicolajsen, E. Pedersen [et al.] // Hindawi publish. corp. autoim. Diseases (2012). P. 1–13. Retrieved from //www.hindawi.com/journals/ad/2012/841085/
- 11. Use of therapies other than disease-modifying agents, including complementary and alternative medicine, by patients with multiple sclerosis: a survey study (2012). / S. S. Stoll, C. Nieves, D. S. Tabby [et al.] // Journ. of the Amer. osteopat. associat. Vol. 112, \mathbb{N}^{0} 1. P. 22–28.