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**USING AN INTEGRATED APPROACH TO TREATMENT PATIENTS
WITH DIABETIC POLYNEUROPATHY LOWER LIMB****ANNOTATION**

The article presents the results of treatment of patients with diabetes mellitus type 1 and 2 diabetic polyneuropathy of the lower extremities. Assessment of the intensity of neuropathic subjective symptoms and vibration sensitivity showed that comprehensive drug treatment Espa - lipon combined with physiotherapy treatments vakumed in patients of group 1 (20) gave a more pronounced positive results compared with group 2 (10). Thus the positive effect of treatment in Group 1 patients was observed on the fifth day of treatment, and in group 2 - only on the tenth day.

Key words: diabetes mellitus type 1 and type 2 diabetic neuropathy of the lower extremities, Espa – lipon, vakumed.

Diabetic polyneuropathy (DPN) – one of the most common and serious complications of diabetes mellitus (DM). According to various studies DPN occurs with equal frequency in patients with type 1 and type 2. Its frequency increases significantly in patients with diabetes type 1 through 5 years or more since the beginning of the disease, and in patients with type 2 diabetes - is often diagnosed when they detect diabetes. The frequency of this complication is equal to 17-80 %, depending on the criteria and methods of diagnosis of neuropathy. In clinically significant form of cash flow is observed in 30-50 % of patients with diabetes, its subclinical form, which can be detected at electroneuromyographic study, observed in 80 % of patients [1].

Violations of the peripheral nervous system are, in turn, one of the causes of diabetic foot syndrome. Among patients with diabetes each year 5-10% suffer from the development of diabetic foot ulcers, 1 % per year in need of lower-extremity amputations. It is known that 50-70 % of all non-traumatic amputations of legs in the world performed in diabetic patients [2].

One of the pathogenetic mechanisms in the development of late complications of diabetes is oxidative stress, in this regard, in the treatment of DPN substantiates the use of antioxidant - alpha lipoic acid (ALA). Neuroprotective mechanism of

action is to reduce the ALA consequences of oxidative stress, particularly by the neutralization of free radicals [3,4].

Proved that the use in treatment of DPN physiotherapy methods effectively stimulates reinnervation and to the extent possible leads to recovery. One of them is vakumed - a new method of physical therapy, the principle of which is to treat the impact of negative pulsating pressure, which leads to the acceleration of the blood circulation, revitalizing the circulatory system and the organization of the flow direction of the lymph and venous blood, which improves blood flow to the muscles and tissues of the lower extremities [5].

Purpose – a comprehensive evaluation of the effectiveness of drug therapy ALA Espa-lipon vakumed with physiotherapy treatments in patients with type 1 or type 2 diabetic polyneuropathy c lower extremities.

Materials and Methods. The study included 20 patients diagnosed with diabetic polyneuropathy c lower extremities (the study group) who received comprehensive treatment (Espa-lipon + vakumed) and 10 patients (control group) received only drug - Espa-lipon. Groups of patients were matched by sex and age composition, duration of diabetes, presence of complications.

Patients in both groups studied the condition of compensation of carbohydrate and lipid metabo-

lism, determined by the severity of neuropathy of the lower extremities.

Eligible patients in the study was the presence of typical complaints and clinical signs of neuropathy legs without clinical and instrumental signs of chronic lower limb ischemia with satisfactory pulsation on a.dorsalis pedis.

Objective study included an assessment of the patient's subjective complaints (numbness, coldness and cramps in the lower extremities, cold lower limbs, especially feet), symptoms of neuropathy assessment scale NSS (tactile sensitivity score using monofilament; temperature sensitivity by thermal tip "Tip-term"; vibration using neurological fork), clinical examination.

General characteristics of the patients are presented in table 1.

All patients assigned to treatment Espa-lipon at a dosage of 600 mg 1 time per day intravenously in 0.9% sodium chloride solution, and one group of patients in combination with physical therapy procedure vakumed course of 10 days.

Dynamics of the intensity of neuropathic manifestations assessed on the 10th day from the beginning of treatment.

Results and discussion. Efficacy was assessed by a decrease in pain, feeling "burning" in the legs, cramps and paresthesias, improved vibration sensitivity. Treatment efficacy results are shown in table 2.

Table 1

General characteristics of the patients examined

Indicator	Group 1, n= 20	Group 2, n= 10
Gender (m / f)	8/12	3/7
The patients age (years)	57,2±16,4	66,3±13,8
Duration of diabetes (years)	10,5±7,0	11,1±6,2
Duration of neuropathy (years)	6,1±2,1	6,0±1,9
Fasting blood glucose (mmol/l)	9,5±1,8	10,1±1,7
Postprandial blood glucose (mmol/l)	11,2±0,8	12,6±1,4
HbA1c (%)	8,2±2,4	8,6±2,4
Neuropathy symptom score (Specific weight of patients in %)		
Pain in the legs at night, %	100	100
Feeling of "burning" in the legs, %	82	80
Convulsions, %	69	70
Paresthesia, %	80	75
The intensity of neuropathic manifestations scale NSS (pts)	9,6±1,0	8,8±0,6
Pallesthesia (units)	2,0±0,6	2,0±0,5

Table 2

Dynamics of indicators of neurological research, the efficacy and tolerability of treatment in the examined patients

Indicator	Group 1, n= 20		Group 2, n= 10	
	before treatment	after t treatment	before treatment	after treatment
The intensity of subjective symptoms of neuropathic (pts)	9,6 ± 1,0	3,1 ± 0,3	8,8 ± 0,6	4,2 ± 0,3
Pallesthesia (units)	2,0 ± 0,6	4,3 ± 0,2	2,0 ± 0,5	3,9 ± 0,2

As seen from Table 2, the estimate of the intensity of neuropathic subjective symptoms and vibration sensitivity showed that comprehensive drug treatment Espa-lipon combined with physio-

therapy treatments vakumed group 1 patients yielded positive results more pronounced in comparison with group 2. Thus the positive effect of treatment in Group 1 patients was observed on the

fifth day of treatment, and in group 2 - only on the tenth day. In neither case was not observed adverse effects.

Conclusions. Integrated approach in the treatment of diabetic complications, particularly diabet-

ic neuropathy of the lower extremities is the most effective and safe treatment. Its effectiveness is confirmed by a decrease in subjective and objective manifestations of neuropathy and security - lack of adverse reactions.

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АННОТАЦИЯ

В статье приведены результаты комплексного лечения больных сахарным диабетом 1 и 2 типа с диабетической полинейропатией нижних конечностей. Оценка интенсивности нейропатических субъективных проявлений и вибрационной чувствительности показала, что комплексное лечение препаратом эспа-липон в сочетании с физиотерапевтической процедурой вакумед у больных 1-й группы (20) дало более выраженные положительные результаты в сравнении со 2-й группой (10). При этом положительный эффект от лечения у пациентов 1-й группы наблюдался уже на 5-й день от начала лечения, а во 2-й группе - только на 10-й день.

Ключевые слова: сахарный диабет 1 и 2 типа, диабетическая полинейропатия нижних конечностей, эспа-липон, вакумед.

ТҮЙІН

Мақалада аяқтың диабеттік полинейропатиясы бар 1,2-түрдегі қант диабетімен ауыратын науқастарды кешенді емдеу нәтижелері келтірілген. Нейропатиялық субъективті байқалу мен вибрациялық сезімталдықтың интенсивтілігін бағалау вакумед физиотерапия емшарасымен үйлестіре отырып, эспа-липон препаратымен кешенді емдеу 1-топтағы (20) науқастарды 2-топпен салыстырғанда (10) айтарлықтай айқындалған оңды нәтижелер бергендігін көрсетті. Осыған орай, 1-топтағы емделушілерде емдеудің жақсы әсері бесінші күннен-ақ, ал екінші топта тек оныншы күні ғана байқалды.

Түйінді сөздер: 1,2-түрдегі қант диабеті, аяқтың диабеттік полинейропатиясы, эспа-липон, вакумед.