

RATIONAL THERAPY OF PSORIASIS ASSOCIATED WITH CARDIOMETABOLIC DISORDERS

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Abstract. *The risk of cardio metabolic disorders is very high in psoriatic patients that associated with higher mortality. The aim of this study was to search of comorbidity psoriasis and cardio metabolic disorders for development of pathogenetic treatment and to investigate effectiveness of metabolic treatment on dermatological and cardio metabolic indicators of patients suffering on psoriasis combined with cardio metabolic disorders. The study was conducted on two groups of patients. Different cardio metabolic violations were determined in 144 patients of 1 group and 69 patients of 2 group, respectively 78,6 % and 88,5 %. The patients of 1 group (183 examinee) were treated with traditional anti psoriatic therapy, patients of 2 group (78 examinee) were treated with metabolic therapy. The statistically significant difference between indexes in the dynamics of treatment of psoriasis first and second groups has not been detected ($p>0,1$). – 41 % and 44 % respectively. The more pronounced improvement of all cardio metabolic indicators was revealed in patients receiving metabolic therapy, particularly improvement of sleep (22,9 %), lowering of the blood pressure (59,7 %), decreasing of headaches (43,0 %) and reducing of cardiac dyspnea (22,9 %). The positive dynamics of key parameters of blood, reflecting lipid and carbohydrate metabolism, did not differ significantly between the groups. Using of metabolic therapy of psoriasis combined with cardio metabolic disorders makes possible to avoid medication for cardio metabolic comorbidity correction, or eliminate the use of already assigned symptomatic therapy.*

Key words: *cardio metabolic disorders, co morbidity, psoriasis, therapy.*

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Introduction. The question about comorbidity of psoriasis is very actual and socially significant. Treatment of dermatosis considering its comorbidity has been difficult and controversial problem. It is known, the risk of cardiovascular disorders is very high in psoriatic patients, that associated with higher mortality [1]. In study M.E. Roberts et al. [2] was shown, that the most frequent reasons of mortality among

psoriatic patients were cardiovascular disorders (heart attack, cerebral and peripheral vascular disease). Similar results have been shown in a recent study [3]. According to current data, the rate of hypertension among patients with psoriasis is significantly higher than in the control group [4]. Recent studies have shown that psoriasis is independent risk factor for myocardial infarction and the patients with severe psoriasis have a greater risk of myocardial infarction [5-6].

The psoriatic arthropathy is accompanied by metabolic disorders, that manifest by deviation of protein metabolism with the development of hyperuricemia and podagra, carbohydrate metabolism (hyperglycemia, association with diabetes mellitus) and lipid metabolism (dyslipidemia, atherosclerosis, coronary heart disease, brain strokes, hypertension) [7-8]. Psoriatic patients have a higher prevalence of hyperlipidemia [8-9], abdominal obesity [4, 10], diabetes mellitus II type [11] and coronary heart disease [5]. These violations often form a metabolic syndrome. According to different authors, metabolic syndrome is detected much more frequently in patients with psoriasis, than in the control group [11, 12]. Mortality among psoriatic patients previously treated with drug therapy was 14,4 %, and those that did not receive antipsoriatic therapy was 10,5 % [1]. This fact demonstrates the urgency of psoriasis comorbidity analysis for choosing the optimal and safe treatment.

The aim of this study was to search of comorbidity psoriasis and cardio metabolic disorders for development of pathogenetic treatment and to investigate effectiveness of metabolic treatment of dermatological and cardio metabolic indicators of patients suffering on psoriasis combined with cardio metabolic disorders.

The object and methods of the study. The 261 psoriatic patients were examined and treated in an outpatient dermatologic city clinic № 5 in Kharkiv (Ukraine) during 2011-2014 years. Treatment of patients with psoriasis was performed according by Ministry of Health of Ukraine Order № 312 from 05.08.09 "On approval of clinical protocols medical providing care for dermatovenereological patients." The conventional therapy included hyposensitization, microcirculatory and tranquilizing action drugs, adaptogens, immunomodulators, vitamins, topical keratolytics, corticosteroids, emollients. Considering high comorbidity of psoriasis

and cardio metabolic disorders, we proposed combine therapy of psoriatic patients with using metabolic and cardioprotective drugs: infusions of Pentoxifylline 0,5 mg in Ringer's lactated solution 200 ml every other day № 5, alternating with 1,5 % solution of Meglumine sodium succinate infusions 400 ml on alternate days № 5, intravenous injections of essential phospholipids 5 ml in 5 ml autoblood once a day № 10 and Magnesii sulfas intravenous injections 5 ml 25 % solution in 5 ml physiological saline once a day № 10. [13-17].

Standard examination of all patients have been provided: clinical blood and urine analysis, feces analysis on helminth eggs, RPR (rapid plasma reagin) by unified methods. The blood glucose level has been determined by the glucose oxidase method. [18]. The weight, height, waist and hips, systolic and diastolic blood pressure were measured. According dermatologist 's prescribing, the ultrasound examination, chemistry panel, expert advice of gastroenterologist, neurologist, endocrinologists, internists, etc. were provided. PASI and DLQI-Dermatology Life and Quality Index were calculated [19-20].

Results of the study and its discussion. All patients have been divided on two groups (Table 1). Patients 1 group (183 examinee) were treated with traditional anti psoriatic therapy.

Patients of 2 group (78 examinee) were treated with metabolic therapy. As a result of combined treatment, the clinical improvement of psoriasis occurred in varying degrees, that accompanied by decrease in desquamation, erythema and infiltration, regressing of psoriatic plaques, disappearance of koebnerization, significant decrease and disappearance of itching. Average PASI decreased on 43 % (from $21 \pm 6,4$ to $12 \pm 4,8$).

There was no significant difference between patients 1st and 2nd group, reducing of clinical index was 41 % and 44 % correspondingly. Also the impact of psoriasis on quality of patients life was reduced and specific index is increased of 2 points after 10 days of treatment in both study groups (Figure 1).

The statistically significant difference between indexes in the dynamics of treatment of psoriasis first and second groups has not been detected ($p > 0,1$).

Comparative characteristic of groups

Criteria	1 group		2 group	
	abs	%	abs	%
Number of patients	183		78	
Male	144	78,7	55	70,5
Female	39	21,3	23	29,5
Average age (years)	47±13,64		51,3±13,91	
Age to 39 years	67	36,6	23	29,5
Age 40-60 years	89	48,6	47	60,3
Age >60 years	27	14,8	8	10,2
PASI<10	9	4,9	7	8,9
PASI 11-30	149	81,4	64	82,2
PASI>30	25	13,7	7	8,9
Average PASI	23±7,6		20±5,7	
DLQI 0-5	25	13,7	3	3,8
DLQI 6-10	98	53,6	30	38,5
DLQI 11-20	44	24,0	36	46,2
DLQI 21-30	16	8,7	9	11,5
Average DLQI	7±2,9		7±3,6	

Different cardio metabolic violations were determined in 144 patients of 1 group and 69 patients of 2 group, respectively 78,6 % and 88,5 %. The dynamics of cardiometabolic disorders observed by the main subjective and objective indicators that were controlled on the 1-st and 11-th days of traditional or metabolic therapy for psoriasis.

The positive dynamics was registered among all studied parameters in both groups of patients. Thus, the sleep disturbance were registered in 139 patients with psoriasis, while improving of sleep was detected in 60.4% of patients first group and 83.3% of the second group after treatment (Figure 2).

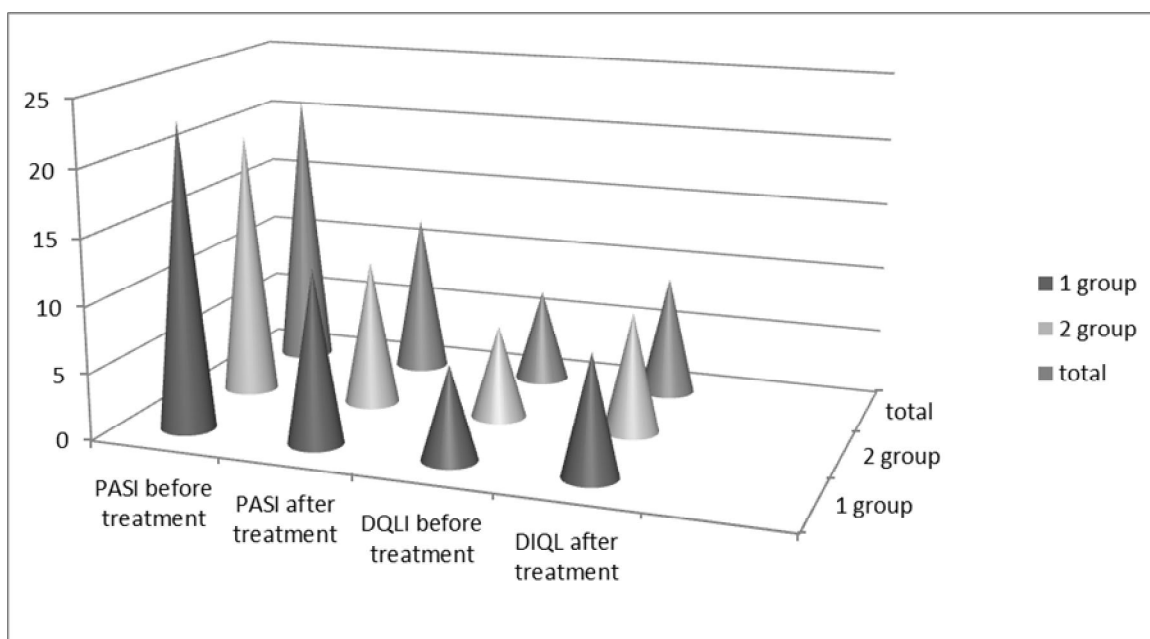


Figure 1. Dynamics of PASI and DIQL in process of treatment of patients with psoriasis.

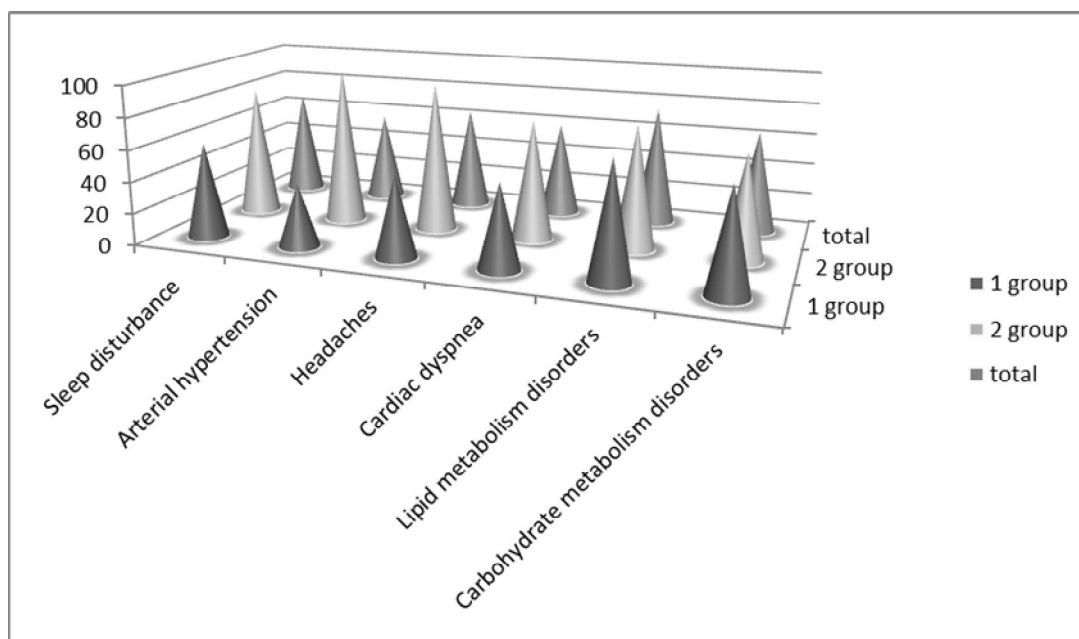


Figure 2. The distribution of positive dynamics of cardio metabolic indicators after the traditional and metabolic treatment of psoriasis.

Increased blood pressure were registered at 107 psoriatic patients before therapy, improvement after treatment were observed in 40.3% of I group patients and in 100% of patients of II group. 120 patients complained of headache, while 51.9% improvement was registered in I group, and 94.9% in II group. We noted the cardiac

dyspnea in 66 psoriatic patients, and registered reducing of this indicator in 55,3 % patients of 1st group and 76,2 % patients of 2nd group. The lipid and carbohydrate metabolism deviations were found in 49 patients 1st group and 46 patients 2nd group. The positive dynamics of these indicators in the 1 group was 73,1 % and 64,5 % respectively, in 2 group – 78,3 % and 66,7 %. The more pronounced improvement of all cardio metabolic indicators was revealed in patients receiving metabolic therapy, particularly improvement of sleep (22,9 %), lowering of the blood pressure (59,7 %), decreasing of headaches (43,0 %) and reducing of dyspnea (22,9 %). The positive dynamics of key parameters of blood, reflecting lipid and carbohydrate metabolism, did not differ significantly between the groups.

Conclusions

Thus, our study have shown comparable efficiency of metabolic and conventional therapy of psoriasis. At the same time, efficiency of correction of cardio metabolic disorders in comorbidity with psoriasis cases, was significantly higher in group treated with metabolic therapy. Using of metabolic therapy of psoriasis combined with cardio metabolic disorders makes possible to avoid medication for cardio metabolic comorbidity correction, or eliminate the use of already assigned symptomatic therapy. This is especially true for the use of antihypertensive drugs, because they are known risk factor for exacerbation of psoriasis and formation of the so-called "drug induced psoriasis".

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Рациональная терапия псориаза, ассоциированного с кардиометаболическими нарушениями

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Резюме. Риск кардиометаболических нарушений у больных псориазом очень высок, что ассоциируется также и с высокой смертностью. Целью данного исследования было изучение коморбидности псориаза и кардиометаболических нарушений для разработки патогенетического лечения и оценки влияния метаболической терапии на дерматологические и кардиометаболические показатели у больных псориазом, ассоциированным с кардиометаболическими нарушениями. Исследование проводили в двух группах больных псориазом. Различные кардиометаболические нарушения были выявлены у 144 пациентов 1 группы и 68 пациентов 2 группы, что составило 78,6 % и 88,5 % соответственно. Пациенты 1 группы (183 исследуемых) получали традиционное лечение псориаза, пациенты 2 группы (78 исследуемых) получали метаболическую терапию. Статистически значимой разницы динамики индексов в процессе лечения псориаза первой и второй групп выявлено не было ($p>0,1$). – 41 % и 44 % соответственно. Более выраженное улучшение по всем кардиометаболическим показателям было выявлено в группе пациентов, получавших метаболическую терапию, особенно улучшение сна (22,9 %), снижение артериального давления (59,7 %), уменьшение головных болей (43,0 %) и одышки (22,9 %). Позитивная динамика по ключевым параметрам крови,

отражающим липидный и углеводный обмен, не отличалась статистически между группами. Использование метаболической терапии псориаза, ассоциированного с кардиометаболическими нарушениями, дает возможность избежать назначения медикаментозной коррекции сопутствующей патологии или сократить уже назначенную симптоматическую терапию.

Ключевые слова: кардиометаболические нарушения, коморбидность, псориаз, терапия.

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Рациональна терапія псориазу, асоційованого з кардіометаболічними порушеннями

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Резюме. Ризик кардіометаболічних порушень у хворих на псориаз є досить високим, що асоціюється також і з високою смертністю. Ціллю даного дослідження було вивчення коморбідності псориаза та кардіометаболічних порушень для розробки патогенетичного лікування та оцінювання впливу метаболічної терапії на дерматологічні та кардіометаболічні показники у хворих на псориаз, асоційований з кардіометаболічними порушеннями. Дослідження проводили у двох групах хворих на псориаз. Різні кардіометаболічні порушення були виявлені у 144 пацієнтів 1 групи та 68 пацієнтів 2 групи, що становило 78,6 % та 88,5 % відповідно. Пацієнти 1 групи (183 хворих) отримали традиційне лікування псориазу, пацієнти 2 групи (78 хворих) отримали метаболічну терапію. Статистичної різниці динаміки індексів в процесі лікування псориазу в першій та другій групі виявлено не було ($p > 0,1$). – 41 % и 44 % відповідно. Більш значуще покращення за всіма кардіометаболічними показниками було виявлене в групі пацієнтів, що отримали метаболічну терапію, особливо покращення сну (22,9 %), зниження артеріального тиску (59,7 %), зменшення головного болю (43,0 %) та задишки (22,9 %). Позитивна динаміка за ключовими параметрами крові, що відображують ліпідний та вуглеводний обмін, не відрізнялася статистично між групами. Використання метаболічної терапії псориазу, асоційованого з кардіометаболічними порушеннями, робить можливим уникнути призначення медикаментозної корекції супутньої патології або скоротити вже призначену симптоматичну терапію.

Ключові слова: кардіометаболічні порушення, коморбідність, псориаз, терапія.

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