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Optimal Treatment Method for Prurigo Patients with Neuropsychic Features

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Abstract: Given the problematic nature of comorbid disorders especially if patients with prurigo and neuropsychiatric disorders, the article considers the possibility of using tranquilizers for the treatment of prurigo. And also for local treatment the use of tincture of chilli pepper in long-term treatment purposes, which will save money ball.

Keywords: Dermatology, prurigo, neuropsychiatric disorders, epilepsy, convulsive syndrome, oligophrenia, schizophrenia, dementia, tranquilizer.

1. Introduction

The concept of comorbidity is no longer a new term in the world of medicine. In simple terms, it refers to a patient with multiple diseases, the treatment of which can be complicated by conflicting requirements for managing different conditions. This complexity has led to the emergence of a new branch of dermatology known as psychodermatology towards the end of the 20th century.

The role of psychological factors in the etiology and pathogenesis of skin diseases has long been emphasized by researchers. However, treatment often considers only physiological parameters, which may not always be effective. The reliance solely on medications and physical procedures addresses the symptoms rather than the causes—namely, the patient's psychosomatic relationships and behavioral reactions. These internal conflicts remain unchanged, leading to the recurrence of symptoms and only temporary improvement [6].

In an article by O.L. Ivanov and co-authors, a comprehensive analysis of the literature on this subject was presented for the first time, along with a historical background on the main stages of the development of psychodermatology. A working classification was proposed, distinguishing two main groups of conditions: skin diseases arising from primary mental disorders and those accompanied or provoked by mental disorders [1].

Comorbid disorders exacerbate the course of the primary disease, leading to its chronicization, reducing patients' work activity, and decreasing treatment effectiveness [2]. Awareness of pathogenetic aspects, vigilance, and timely diagnosis enable effective therapy that targets both dermatosis and comorbid pathology in a parallel and sequential manner [2].

Prurigo, a disease within the neuroallergodermatoses group, is characterized by a chronic recurrent course and multifactorial etiology. Morphological elements include hemispherical papular, papulo-vesicular, urticarial, and nodular rashes, accompanied by severe itching that negatively affects the psyche and quality of life of patients. [1-2]

The peculiarities of the recurrent form of prurigo indicate the significant role of the nervous system. In cases with prolonged skin pathology, high rates of anxiety and depression have been observed in patients with prurigo. This necessitates an individualized approach, consultations with multidisciplinary specialists, and helps improve the quality of medical care while avoiding complications and medical errors.

The relevance of addressing prurigo is underscored not only by its wide prevalence—accounting for up to 5% of dermatologic pathology—but also by an increasing incidence of severe, treatment-resistant variants of the disease and its long-term recurrent course [3-4].

This highlights the need for new approaches to understanding the complex psychosomatic interrelationships in skin diseases [11].

2. PURPOSE OF THE STUDY:

To determine the peculiarities of prurigo among individuals with neuropsychiatric disorders. To find optimal and effective methods of treatment of prurigo.

3. METHODS.

The study was conducted at the "Muruvvat" boarding house for women with disabilities in Syrdarya district. All 355 participants were female and had been diagnosed with neuropsychiatric diseases. Psychiatrists and neurologists also consulted with the attending physicians.

We used the SCARAD index (Severity Assessment of Atopic Dermatitis) to measure the severity of atopic dermatitis, as its clinical presentation is very similar to that of prurigo. The extent and intensity of skin lesions, along with subjective sensations, were assessed and recorded on individual cards using the SCARAD scale.

For the first time, a benzodiazepine tranquilizer (verzepam) was used to treat prurigo. Additionally, chilli tincture was applied as a topical treatment for prurigo for the first time. During consultations, an anamnesis was carefully collected and a disease questionnaire was reviewed.

4. RESULTS.

The patients examined ranged in age from 18 to 71 years. All 355 participants were disabled women (100%). Skin abnormalities were identified in 93 of these individuals. Children and young people under 18 years did not participate (0%). Young adults aged 18 to 30 years comprised 99 participants (28%), among whom 24 (26%) had skin abnormalities. The average age group, 31 to 45 years, included 110 participants (31%), with 41 (44%) showing signs of skin disease. Elderly and senior patients, aged 46 to 81 years, accounted for 146 participants (41%), 28 of whom (30%) exhibited skin abnormalities [2]. These findings are presented in Table 1.

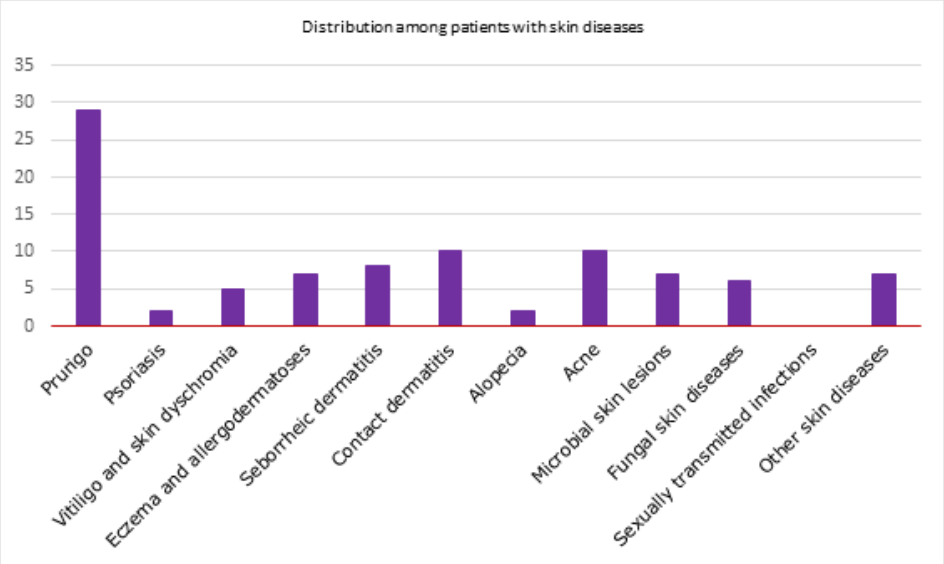
Table 1. Breakdown by age group.

№	Age category	Total number of participants (percentage)	Quantities among dermatologic patients (percentage)
1	Young (18-30 years old)	99 (28%)	24 (26%)
2	Medium (31-45 years old)	110 (31%)	41 (44%)
3	Elderly and senile (46 years and older)	146 (41%)	28 (30%)

The diagnosis of prurigo was established based on anamnesis, clinical presentation, and laboratory data.

Among the dermatological diseases identified, the following results were observed: a total of 93 patients had various diseases. Of these, 29 (31%) had prurigo, 2 (2%) had psoriasis, 6 (6%) had vitiligo, 7 (7%) had eczema and allergic dermatoses, 8 (8%) had seborrheic dermatitis, 10 (10%) had contact dermatitis, 2 (2%) had alopecia, 10 (10%) had acne, 7 (7%) had microbial skin lesions, 6 (6%) had fungal skin infections, 0 (0%) had sexually transmitted diseases, and 7 (7%) had other skin diseases. These results are summarized in Table 1.

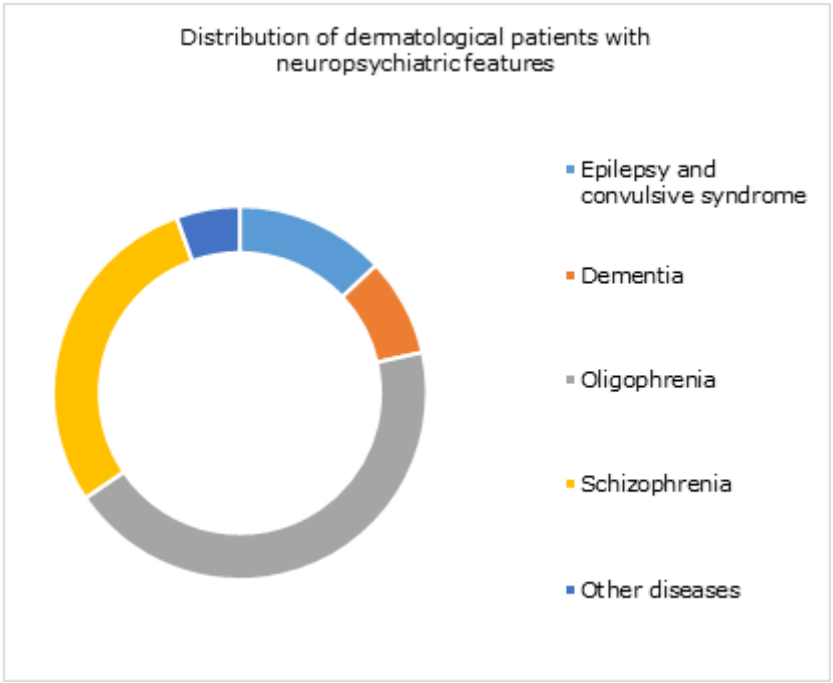
Chart - 1. Distribution by dermatologic diseases.



Psoriasis, eczema, and vitiligo were not found among patients with oligophrenia, and notably, no cases of acne were observed among patients with schizophrenia. Conditions such as prurigo and seborrheic dermatitis are predominantly frequent among patients with oligophrenia. Dementia was not associated with any specific diseases.

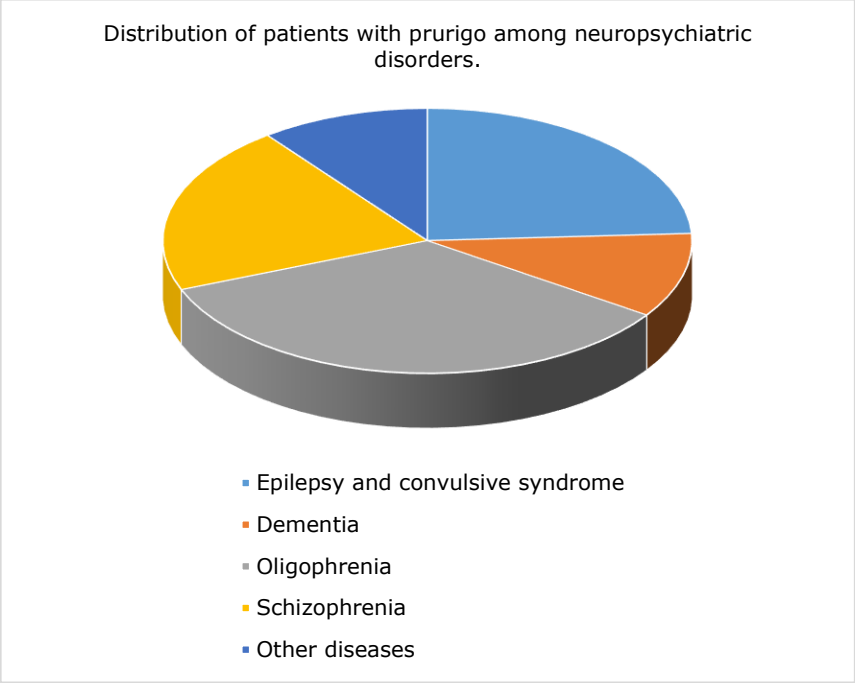
Among the 93 patients with identified skin pathologies, the following neuropsychiatric conditions were noted: epilepsy and convulsive syndrome in 12 patients (13%), oligophrenia in 41 (44%), schizophrenia in 27 (29%), dementia in 8 (8.5%), and other conditions in 5 (5.5%). These results are summarized in Chart 2.

Chart-2. Distribution of dermatological patients with neuropsychiatric features.



As can be seen, among the dermatological diseases, prurigo was the most common, affecting 29 patients. Of these, 7 patients (24%) had epilepsy and convulsive syndromes, 3 patients (10.5%) had dementia, 10 patients (35%) had oligophrenia, 6 patients (20%) had schizophrenia, and 3 patients (10.5%) had other diseases. The results are summarized in Figure 3.

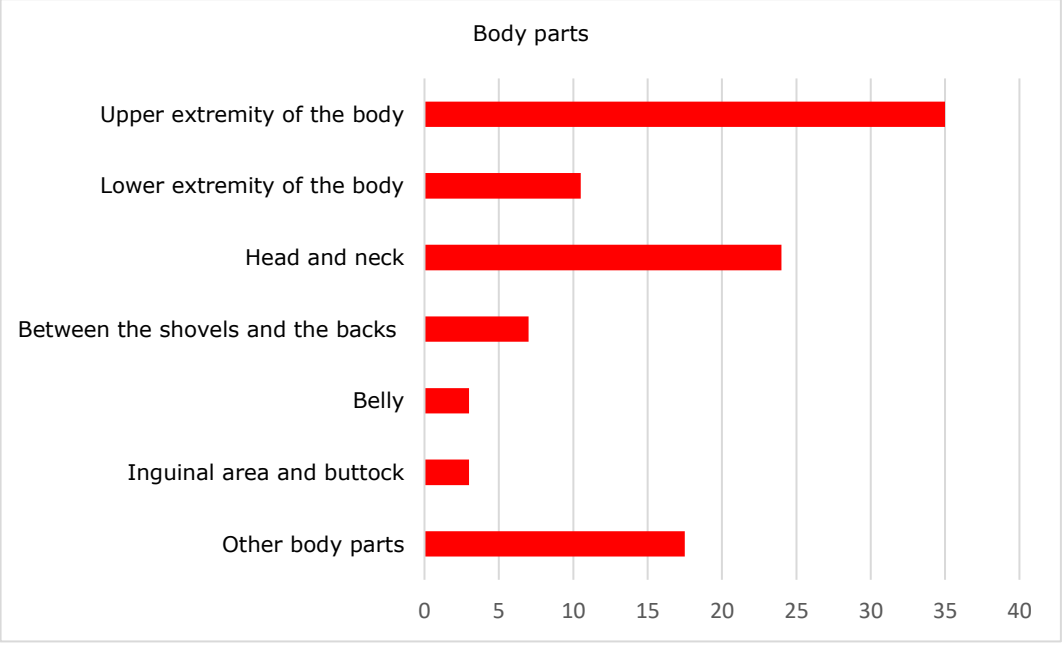
Diagram - 3. Distribution of patients with prurigo among neuropsychiatric disorders.



Regarding the seasonal occurrence of prurigo, we could not establish a connection between the onset and progression of the disease and the time of year.

The localization of prurigo rash manifestations was as follows: 10 women (35%) had skin lesions on the upper extremities, 3 patients (10.5%) on the lower extremities, 7 (24%) on the head and neck, 3 (10.5%) on the skin between the shoulder blades, 2 (7%) on the back, 1 (3%) on the abdomen, and 1 (3%) on the skin of the inguinal region and buttock. Additionally, 5 patients (17%) had skin lesions in other locations. Symmetrical skin lesions were observed in 11 patients (38%), while asymmetrical or single lesions were noted in 18 (62%).

Diagram- 4. By localization of rashes manifestation on the skin.



The study did not include pediatric prurigo and pediatric papular urticaria, as there were no children at the "Muruvvat" Syrdarya district boarding home for women with disabilities.

To study the nature of the clinical course of prurigo, the SCORAD index (Severity Assessment of Atopic Dermatitis) was used, as the clinical presentation of atopic dermatitis is very similar to that of prurigo. The diagnosis of prurigo in women was established based on clinical diagnostic criteria using generally accepted methods. Disease severity was assessed using the SCORAD index scoring system.

The patients, aged 18 to 71 years, were categorized by clinical type, age, and duration of the course. All participants were female. According to the clinical form of prurigo, adult prurigo was diagnosed in 27 patients (93%), and nodular prurigo in 2 (7%), which included 1 case of Hyde's nodular prurigo (50%) and 1 case of nodular neurodermatitis (50%). No cases of persistent papular urticaria were recorded.

The evaluation of the clinical course of prurigo according to the SCORAD index showed that the highest number of patients, 15 out of 29 (51.6%), had a moderate degree of severity. As indicated in Table 2, a mild degree of severity was observed in 10 patients (34.4%) with an average score of 40.6 ± 0.5. A moderate degree of severity was observed in 15 patients (51.6%) with an average score of 69.2 ± 0.3, and a severe degree in 4 patients (14%) with an average score of 81.4 ± 0.4. These results are presented in Table 2.

Table – 2. Severity scores according to SCORAD index in patients with prurigo.

Degree of severity	light degree	Medium degree	Severe degree
In scores	40,6±0.5	69.2±0.3	81.4±0.4
Number of patients with prurigo	10	15	4

In order to identify the optimal treatment method, patients with prurigo were divided into three groups. The first group consisted of one hundred fifty people including patients with schizophrenia (2), oligophrenia (4), dementia (1), epilepsy and convulsive syndrome (2), and other diseases (1). Among the clinical forms of prurigo, the first group comprised 9 (90%) patients with adult prurigo, and 1 (10%) person with Hyde's nodular prurigo.

The second group consisted of 9 patients distributed as follows: schizophrenia (2), oligophrenia (3), dementia (1), epilepsy and convulsive syndrome (2), and other diseases (1 person). This group was characterized by 10 (100%) patients with adult prurigo, and no cases of Hyde's nodular prurigo (0%).

The third group included 10 people, with schizophrenia (2), oligophrenia (3), dementia (1), epilepsy and convulsive syndrome (3), and other diseases (1 person). According to the clinical forms of prurigo, the third group was composed of 9 (90%) patients with adult prurigo, and 1 (10%) person with Hyde's nodular prurigo. All these data are presented in Table 3.

Table - 3. Allocations to the group with clinical diagnoses of the patients.

Groups	*I*	*II*	*III*
Diseases with neuropsychiatric disorders			
Schizophrenia	2	2	2
Oligophrenia	4	3	3
Dementia	1	1	1
Epilepsy and convulsive syndrome	2	2	3
Other diseases	1	1	1
Clinical form of prurigo			
Children's prurigo	0	0	0
Adult prurigo	9	9	9

Hyde's nodular prurigo	1	0	1
Total number	10	9	10

All participants in the study were contraindicated for physiotherapeutic procedures due to existing neuropsychiatric disorders.

The first group of patients received standard treatment as prescribed by Order #273 of the Ministry of the Republic of Uzbekistan dated November 30, 2021. All patients received antihistamines, hyposensitizing drugs, enterosorbents, vitamin therapy, topical agents (mometasone furoate, clobetasone butyrate) and emollients. The course of treatment lasted 10 days. The results of the treatment were as follows: 6 (60%) patients showed clinical recovery, 3 (30%) experienced clinical improvement, and the remaining 1 (10%) had slight improvement in skin conditions, though itching persisted in the patient with Hyde nodular prurigo. They had to continue the treatment. After the treatment ended, 7 (70%) patients experienced a relapse of the disease within 1-3 months.

The second group of patients also received standard treatment according to Order #273 of the Ministry of the Republic of Uzbekistan dated November 30, 2021, but with the addition of local treatment using tincture of chili pepper. All patients received antihistamines, hyposensitizing drugs, enterosorbents, vitamin therapy, topical treatment with tincture of chili pepper applied four times a day, and emollients. The course of treatment also lasted 10 days. The treatment results showed the following: 6 (66%) patients were clinically cured, 3 (34%) showed clinical improvement, and they had to prolong their course of treatment. After the end of treatment, 6 (66%) patients relapsed within 1-3 months.

The third group of patients received only a tranquilizer in tablet form, benzodiazepine (Virazepam), at a dosage of 10 mg in the evening once daily, along with local treatment using emollients. The course of treatment lasted for 10 days. The treatment results were as follows: 10 (100%) patients showed clinical recovery. After the course of treatment, 4 (40%) patients relapsed within 1-3 months.

The results are presented in Table 4.

Groups	*I*	*II*	*III*
According to the clinical course			
Clinical recovery	6 (60%)	6 (66%)	10 (100%)
Clinical improvement	3 (30%)	3 (34%)	-
Minor improvements	1 (10%)	0 (0%)	-
Post-treatment follow-up			
Relapse after 1-3 months	7 (70%)	6 (66%)	4 (40%)

DISCUSSION

The clinical results for all groups are as follows: In the first group of patients, after standard treatment, clinical recovery was noted in 60%, clinical improvement in 30%, and insignificant improvement in only 10% of patients. After a 3-month follow-up, a relapse of prurigo was noted in 70% of patients.

The second group of patients also received standard treatment, but the local treatment was replaced by the use of chili pepper tincture. In this group, clinical recovery was observed in 66%, and clinical improvement in 34%. During the dynamic observation over 3 months, a relapse was noted in 66%.

In the third group of patients, clinical recovery was noted in 100%. Following a 3-month follow-up, relapses were noted in only 40%, which is considered to be a good result.

5. Conclusion

The arsenal of therapy for prurigo is diverse, but there is a specific group of patients whose treatment must consider comorbidities.

Interestingly, skin lesions are often observed on the upper extremity (35%) and on the head and neck (24%). This is likely due to heightened concern for their appearance.

In this study, we identified the role of prurigo (31%) among those with neuropsychiatric disorders. Most importantly, we found that tranquilizers not only positively affect psychoneurological disorders but also have a favorable impact on prurigo. Their sedative and myorelaxing effects alleviate itching, which helps resolve the process itself. Additionally, we have demonstrated that it is possible to replace topical steroids with a less expensive tincture of chili pepper, which has far fewer side effects than topical steroids. All of this underscores the economic advantages of this new method for treating prurigo.

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