CASE REPORTS



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V. TKACH ¹, O. ALEKSANDRUK ¹, I. KOSTYSHYN ¹, M. VOLOSHYNOVYCH ^{1,*}, G. GIRNYK ¹, S. ROMANCHUK ²

- ¹ Ivano-Frankivsk National Medical University, Ivano-Frankivsk, Ukraine
- ² Municipal Institution «Precarpathian Clinical Dermatological and Venereological Center of Ivano-Frankivsk Regional Council», Ivano-Frankivsk, Ukraine
- * Correspondence: Email: mvoloshynovych@gmail.com

CASE OF THE TRANSFORMATION OF PSORIASIS INTO CUTANEOUS T-CELL LYMPHOMA

Psoriasis is a long-known skin pathology, the incidence of which is constantly rising, though it is not possible to clearly establish the trend due to the differences in the research design. In recent years, the number of cases among children and adolescents has increased. Psoriasis becomes more aggressive, severe forms are more common. It can be combined with other diseases but is rarely complicated. Isolated cases of the transformation of psoriatic plaques into skin cancer have already been described in the literature. Probable causes were the long-term use of photosensitizers and phototherapy, naphthalene, and tar. However, in general, the risk of the malignant recurrence in patients with psoriasis does not increase significantly. We present a clinical observation of the transformation of psoriasis into cutaneous T-cell lymphoma in a patient with more than 37 years of psoriasis experience, where on the background of typical psoriatic rashes, tumoral growths of doughy consistency appeared, which were initially misinterpreted as a warty form of psoriasis. Based on the data of additional methods of examination and the results of histological examination, the diagnosis was clarified. Specific treatment was prescribed, which proved its effectiveness. The probable causes of degeneration, in our opinion, are prolonged irritating external therapy and excessive insolation.

Keywords: diagnosis, lymphoma, psoriasis, treatment.

Psoriasis is a long-known skin disease. According to the results of some observations, the number of patients is increasing significantly, but due to differences in the design of the studies, it is still impossible to establish such a global trend [1]. Psoriasis is "rejuvenated" and registered in school and preschool children; cases of psoriasis in infants, even in newborns, have been described [2, 3]. Psoriasis became an aggressive disease, and severe forms became more frequent: pustular, arthropathic, warty, "hardened," psoriatic erythroderma. Psoriasis can be combined with other diseases but is rarely complicated [4]. Isolated cases of the transformation of psoriatic plaques into skin cancer have been re-

ported after long-term use of topical photosensitizers and phototherapy, naphthalene, and tar, but in general, the risk of malignant neoplasms in patients with psoriasis does not increase significantly [5]. It is noteworthy that the frequency of use of immunobiological therapy did not increase either. Summary of data from the analysis of the results of clinical trials shows that there are no reported cases in patients using IL-23 inhibitors and a limited number of cases in patients using other types of inhibitors [6].

Below we present a clinical observation of the transformation of psoriasis into cutaneous T-cell lymphoma (CTCL) synonym mycosis fungoides.

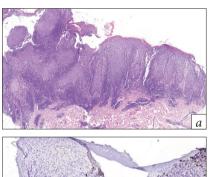
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Fig. 1. Patient M. Typical psoriatic plaque on the lower extremity



Fig. 2. Patient M. Tumoral growths on plaques localized laterally from the right shoulder blade







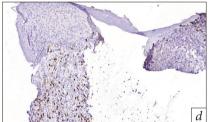
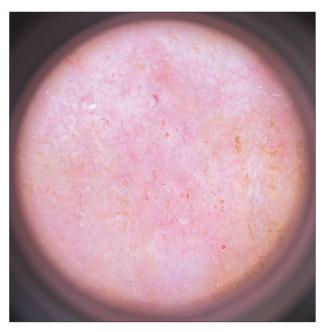


Fig. 3. A fragment of skin from the area of tumoral growths: H&E staining, $\times 3.8$ (*a*); Expression of CD3, $\times 3.5$ (*b*); CD30, $\times 4.7$ (*c*), and CD8, $\times 11.2$ (*d*). Immunohistochemistry, 3-diaminobenzidine tetrachloride chromogen. Staining with hematoxylin



Fig. 4. Patient M. The area of tumor growths on the 20^{th} day of treatment



 $\it Fig.~5.$ Dermoscopy using a light-conducting fluid. The area of tumor growths on the $20^{\rm th}$ day of treatment

Case synopsis. Patient M. was 52 years old. Psoriasis debuted at the age of 15. Family history of psoriasis was burdened: the father suffered from this disease from the age of 20. The periodic exacerbations of psoriasis are associated with frequent tonsillitis and stress. At the age of 15 she suffered mental trauma. The patient was constantly under the supervision of a dermatologist and received traditional therapy (vitamins, hepatoprotectors, sedatives, topical ointments with glucocorticoids, salicylic and boric acid, naphthalene), sunbathing, sea bathing, and phototherapy UVB. She often tanned to chocolate skin color. For more than a year, warty growths appeared on plaques in the area lateral to the right shoulder blade. The dermatologist regarded them as a warty form of psoriasis and prescribed betamethasone 1 mL intramuscularly every 10 days, the course of 3 injections, topical mometasone, and salicylic ointment 10%. Papillary growths decreased. The patient consulted us in May with complaints about the appearance of growths on psoriatic plaques and itching. On examination, an unaffected skin was brown, turgor and elasticity were reduced. On the lower and upper extremities and trunk, typical psoriatic plaques were compacted and covered with silver scales (Fig. 1). The psoriatic triad was positive. On the plaques localized laterally from the right shoulder, tumoral growths, doughy consistency, pink, not painful (Fig. 2), excoriations covered with hemorrhagic crusts. Regional and remote lymph nodes were not enlarged. General and biochemical blood test: indicators within normal limits, leucocytes 8.35×10^9 /L, and ESR 15 mm/h. Chest radiography within the age norm. ECG showed minor changes in the myocardium and signs of cardiosclerosis. Ultrasound of the abdominal cavity: dyskinesia of the biliary tract.

Punch biopsy of the area of tumoral growths: Epidermis with severe parakeratosis, severe irregular acanthosis. Lymphohistiocytic infiltration with signs of lymphocyte epidermotropism was observed in the dermis (Fig. 3, *a*). Results of immunohistochemistry: tumor cells were positive for CD2, CD3, CD4, CD 30 CD56 (Fig. 3, *b*, *c*), partially positive for CD8 (CD4: CD8 greater than 10:1) (Fig 3, *d*). The morphological picture and immunophenotype of tumor cells corresponded to CTCL.

Case discussion. Taking into account the anamnesis, clinical data, and the results of histopatho-

logical examination, we diagnosed psoriasis vulgaris, plaque form, winter type, stationary stage with transformation into CTCL. The patient was prescribed Triamcinolone 32 mg per day, a single dose of 60 mg of Methotrexate, Asparaginat K-Mg, B vitamins, hepatoprotector, restriction of carbohydrates and salt, topical Betamethasone with salicylic acid. Ten-day control studies of the general analysis of blood, urea, creatinine, ALT, AST, glucose, bilirubin, cholesterol, and B-lipoproteins. On the 20th day of treatment of the patient, ESR decreased to 5 mm/h, leukocytes increased to 12.71×10^9 /L, the other indicators were within normal limits, and the general analysis of urine was without abnormalities. The general condition of the patient was satisfactory, psoriatic plaques were in the regression stage, and tumor growths had decreased (Fig. 4).

During dermoscopy in the area where the tumoral growths were determined, white circles and lumps were observed against the background of small-textured pink-red areas with single dot, looped, and spermatozoa-like blood vessels. The gaps between the outgrowths were filled with orange lumps. The symptom of adhered fibers was positive (Fig. 5). Thus, the picture seen during dermoscopy preserved the features that were typical for CTCL. Studies of recent years have testified to the correlation of dermoscopic signs with histological changes, which can increase the accuracy of diagnosis under the conditions of their simultaneous use [7].

The patient continued to receive Triamcinolonum 32 mg daily and 7.5 mg Methotrexate intramuscularly every five days. From the 30th day of treatment under the control of the general analysis of blood, urine, and biochemical parameters every two weeks, and the dose of Triamcinolonum was reduced by 4 mg. The general condition of the patient was satisfactory, psoriatic lesions and tumor elements regressed slowly. The patient continued to receive 16 mg of Triamcinolonum and 7.5 mg of methotrexate every five days, topical corticosteroids in ointments and creams. UVB 311 nm phototherapy was prescribed 2—3 times a week. The biochemical parameters of blood, general analysis of urine and blood within normal limits, except for fluctuations of ESR up to 15-28 mm/h and the number of leukocytes up to $12-14 \times 10^9$ /L.

The cases of the transformation of psoriasis into CTCL are rare, but the systematic reviews that have appeared in recent years include analytical data that indicate a connection, as in the case of our patient, with the long-term use of various therapies. Importantly, some CTCL cases may be misdiagnosed with psoriasis due to the similarity of the clinical picture in the initial stages of these diseases [8], although our patient had a 37-year history of psoriasis. Age over 50 years is also typical; the disease affects people of both sexes.

The described clinical case of the transformation of psoriasis into CTCL is rare, so it is of practical value for dermatologists. CTCL in the erythematous stage may be clinically similar to psoriasis, so diagnostic errors are common. In our case, the duration of the disease was 37 years, hereditary history; the results of histopathological examination indicated psoriasis with transformation into CTCL. The dermoscopic examination of rashes can be used as an additional diagnostic method and means for control of the treatment effectiveness. In our opinion, the probable causes of degeneration were the prolonged irritating external therapy and the regular excessive insolation.

Potential conflicts of interest

The authors declare no conflicts of interest.

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Tкач 1 , О. Александрук 1 , І. Костишин 1 , М. Волошинович 1 , Г. Гірник 1 , С. Романчук 2

ВИПАДОК ТРАНСФОРМАЦІЇ ПСОРІАЗУ В Т-КЛІТИННУ ЛІМФОМУ ШКІРИ

Псоріаз — здавна відома патологія шкіри, захворюваність на яку невпинно зростає, проте чітко встановити тенденцію не вдається через різницю в дизайні досліджень. Останні роки почастішали випадки серед осіб дитячого і юнацького віку. Псоріаз стає агресивнішим, частіше спостерігаються важкі форми. Він може поєднуватися з іншими хворобами, але рідко ускладнюється. В літературі описані поодинокі випадки трансформації псоріатичних бляшок в рак шкіри. Ймовірними причинами були тривале використання фотосенсибілізаторів і фототерапії, препаратів нафталану та дьогтю. Проте загалом ризик виникнення переродження у пацієнтів з псоріазом підвищується не значно. Подано клінічне спостереження трансформації псоріазу в Т-клітинну лімфому шкіри у пацієнтки з понад 37 річним стажем захворювання, де на фоні типових псоріатичних висипань з'явились грибовидні розростання тістуватої консистенції, що спочатку були помилково інтерпретовані як бородавчата форма псоріазу. Спираючись на дані додаткових методів обстеження та результати гістологічного дослідження, діагноз уточнено. Призначено специфічне лікування, що продемонструвало свою ефективність. Ймовірними причинами переродження, на нашу думку, є тривала подразнювальна зовнішня терапія та надмірна інсоляція.

Ключові слова: псоріаз, лімфома шкіри.

¹ Івано-Франківський національний медичний університет,

Івано-Франківськ, Україна

² КНП «Прикарпатський клінічний шкірно-венерологічний центр Івано-Франківської обласної ради», Івано-Франківськ, Україна