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Case Report

Generalized eruptive keratoacanthomas of Grzybowski in the practice of a dermatologist: A case report

Igor Kuklin[1], Nina Malishevskaya[1], Muza Kokhan[1], Galina Safonova[1], Olga Rimar[1], Maria Kuklina[2], Svetlana Ignatkova[2]

[1]Ural Research Institute of Dermatovenereology and Immunopathology, Ekaterinburg, Russia, [2]Ural Federal University named after the first President of Russia B.N. Yeltsin, Ekaterinburg, Russia.

Corresponding author: Igor Kuklin, MD, E-mail: kuklin71@mail.ru

ABSTRACT

The article deals with a case of the clinical observation of a rare disease: generalized eruptive keratoacanthomas of Grzybowski. The disease pattern is characterized by the presence of small, generalized, itchy papules on the skin of the face, eyelids, trunk, extremities, genitals, and oral and laryngeal mucosae. The authors present a case of their own clinical observation of multiple eruptive keratoacanthomas of the Grzybowski type in a fifty-year-old patient seeking medical advice from a dermatologist. The duration of the disease was 2.5 years and its occurrence was preceded by repeated visits to countries with excessive insolation, which may be considered an etiological factor in the development of the disease. The diagnosis was verified by the disease pattern and pathomorphological studies on a biopsy of the affected skin.

Keywords: Generalized eruptive keratoacanthomas of Grzybowski; Disease pattern; Medical detection; treatment

INTRODUCTION

Generalized eruptive keratoacanthomas of Grzybowski is an extremely rare atypical form of keratoacanthoma, a benign epithelial skin neoplasm. The disease pattern is characterized by the presence of hundreds or thousands of small, generalized, itchy papules on the skin of the face, eyelids (with the formation of ectropion), trunk, extremities, genitals, and oral and laryngeal mucosae. The disease develops over the age of forty, has a relapsing course, and is characterized by possible spontaneous involution of individual elements with the formation of areas of depigmentation or atrophic scars. The influence of ultraviolet radiation, chemical carcinogens, human papillomavirus, and immunosuppressive therapy are assumed to be etiopathogenetic factors in the development of the disease [1-5].

Herein, we present a clinical observation of generalized eruptive keratoacanthomas of Grzybowski diagnosed by the staff of the institute for the first time.

CASE REPORT

A fifty-year-old patient turned to the Ural Research Institute of Dermatovenereology and Immunopathology to establish a diagnosis with complaints about numerous itchy papules on the skin of the face, trunk, and extremities, severe dryness and tightness of the skin up to eversion of the lower eyelids. Sleep disturbance due to itching and tightening of the skin was present. The patient had been ill for 2.5 years, when he began to notice the periodic appearance of single neoplasms described above on the skin of the face, chest, and right forearm, spontaneously disappearing after 2–3 months with the formation of flat, atrophic scars. During the previous several months, he noted a significant deterioration in the course of the disease: generalization of the rashes, increased intensity of itching, and tightening of the skin. Retrospectively, the patient was found to have visited countries with excessive insolation 6–7 months before the onset of the disease: Costa Rica, Cuba, Nicaragua, and Thailand.

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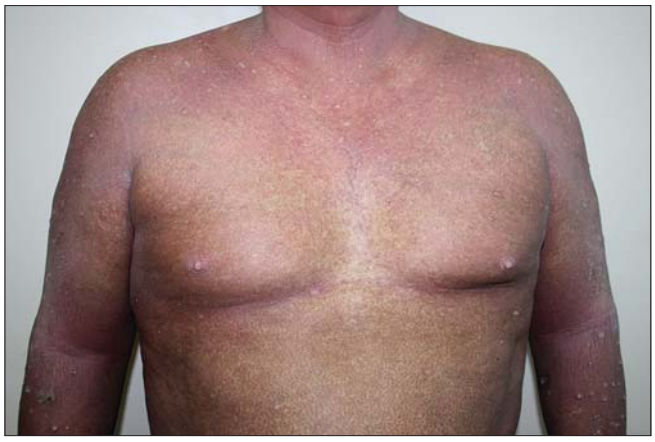

Figure 1: Multiple keratoacanthomas on the skin of the trunk and upper limbs.

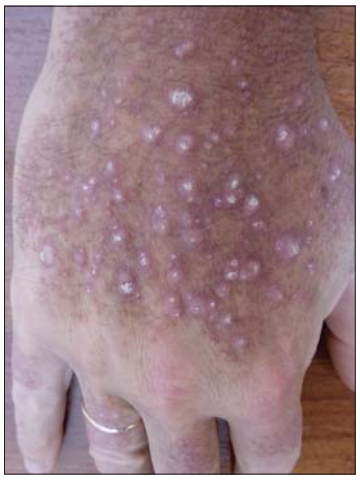

Figure 2: Multiple keratoacanthomas on the skin of the right hand at different stages of development.

The general condition of the patient was satisfactory. No pathological changes were found in the internal organs.

Status specialis: The skin process is generalized. On the skin of the face, trunk, and extremities, hundreds of erythematous nodules with a diameter of 1 to 8 mm are observed; the nodules have a smooth surface or are covered in the central part with gray, horny crusts, which are easily removed with a spatula without bleeding (Figs. 1 and 2). In the place of the nodules that have undergone spontaneous involution, areas of skin depigmentation are formed. On the skin of the lateral surface of the neck, there is a dome-shaped knot with a diameter of 1.7 cm and, in its central part, there is a crater-shaped depression (pseudo-ulcer) surrounded by a dense roller up to 3 mm wide, pink in color (Fig. 3). Ectropion of the upper and lower eyelids of both eyes is noted. The eyelashes on the lower eyelid are absent. The oral mucosa is without specific changes.

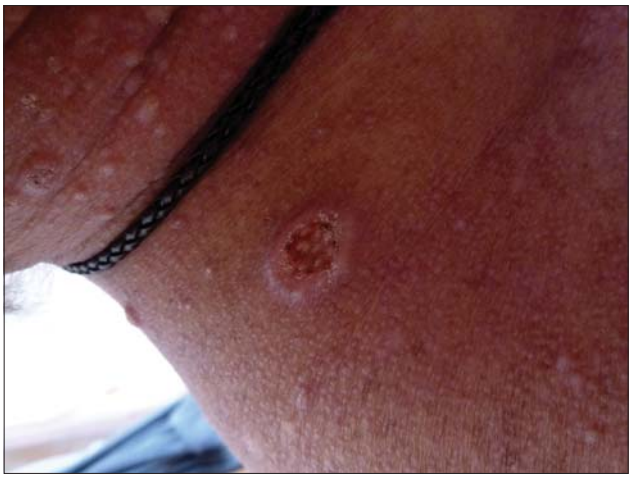

Figure 3: Crater-shaped keratoacanthoma with a central pseudo-ulcer on the skin of the lateral surface of the neck.

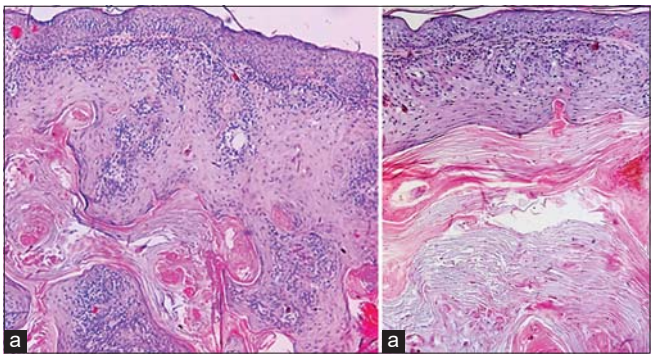

Figure 4: Pathomorphological examination of skin biopsy: (a) The epidermis with submerged papillomatous and acanthotic outgrowths (H&E, 50×); (b) signs of atypical keratinization of the "horny pearls" type and massive, hyperkeratotic, concentric foci (H&E, 100×).

No abnormalities are revealed in the clinical blood analysis and clinical urine test. In a biochemical blood test, there is an increase in total bilirubin to 27.1 μmol/L. Blood tests for viral hepatitis, HIV, and a complex of serological reactions to *Treponema pallidum* are negative.

Pathomorphological studies of the skin biopsy (Figs. 4 a and 4b): There is hyperparakeratosis with the formation of "horny pearls" submerged in epidermal outgrowths, which do not have a clear border with the underlying dermis, and foci of dyskeratosis. The length of the epidermal processes reaches the level of the pilosebaceous appendages. Quite a dense mononuclear infiltrate is determined in the stroma of the keratoacanthoma and the underlying dermis. The morphological picture corresponds to a developing keratoacanthoma.

On the basis of the clinical and pathomorphological data, the patient was diagnosed with generalized

eruptive keratoacanthomas of Grzybowski. Various treatment options were discussed with the patient and the appointment of acitretin (Neotigason) at a dose of 35 mg/day was recommended under the control of a biochemical blood test and dynamic observation by the dermatologist. The flattening and regression of most small keratoacanthomas and the disappearance of itching were noted a month after the first administration of Neotigason. Inspired by the improvement in the skin process, the patient independently increased the dose of Neotigason to 70 mg/day, which resulted in pronounced side effects of systemic retinoids (cheilitis, xerosis, peeling of the palms and soles, brittle nails, nosebleeds, blepharoconjunctivitis) as well as in an increase in total (73.3 μmol/L) and indirect bilirubin (64.1 μmol/L) in biochemical blood analysis. All these served as the basis for the discontinuation of the drug. The patient was referred to the gastroenterologist and ophthalmologist for an in-depth examination to establish a possible concomitant pathology. Then, communication with the patient was lost and there was no possibility of dynamic observation.

DISCUSSION

The diagnosis of the disease is established on the basis of the clinical picture and the data from pathomorphological studies on a skin biopsy. Differential diagnosis is performed with squamous cell skin cancer, ulcerative basal cell carcinoma, molluscum contagiosum, Kyrle disease, multiple keratoacanthomas of the Ferguson–Smith type, cutaneous metastases of internal cancers, Muir–Torre syndrome, etc. [1,3].

The treatment of generalized eruptive keratoacanthomas of Grzybowski does not exclude relapses of the disease and is performed with aromatic retinoids or cytostatics. In some cases, intralesional injections of interferon-α, applications of cytostatic drugs, electrocoagulation, cryo- and laser destruction, photodynamic therapy, and surgical tumor excision are employed [6-9].

CONCLUSION

The presented clinical case demonstrates the complexity of the diagnosis of generalized eruptive keratoacanthoma of Grzybowski due to the rare occurrence of this nosology and emphasizes the importance of consolidating the clinical experience of leading dermatologists and pathomorphological studies on skin biopsies.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understand that his name and initials will not be published and due efforts will be made to conceal their identity.

REFERENCES

1. Molochkov VA, Kuntsevich ZhS, Bobrov MA, Dibirova SA. Eruptive keratoacanthoma of Grzybowski. Almanac Clin Med. 2014;34:36-41.
2. Kuntsevich ZhS, Molochkova YuV, Bobrov MA, Khlebnikova AN. Acitretin in the treatment of Grzybowski type eruptive keratoacanthoma. Almanac Clin Med. 2016;44:96-102.
3. Lane Anzalone C, Cohen PR. Generalized eruptive keratoacanthomas of Grzybowski. Int J Dermatol. 2014;53:131-6.
4. Nofal A, Assaf M, Nofal E, Alradi M. Generalized eruptive keratoacanthoma: Proposed diagnostic criteria and therapeutic evaluation. J Eur Acad Dermatol Venereol. 2014;28:397-404.
5. Havenith R, Vos L, Frohlich A, Braegelmann C, Sirokay J, Landsberg J. Grzybowski's generalized eruptive keratoacanthomas in a patient with terminal kidney disease - an unmet medical need equally ameliorated by topical imiquimod cream and lapacho tea wraps: A case report. Dermatol Ther. 2021;11:625-38.
6. Galkin VN, Romanko YuS, Kaplan MA, Molochkov AV, Molochkov VA, Kuntcevich ZhS. The use of photodynamic therapy in the treatment of keratoacanthomas (review). Biomed Photon. 2016;2:21-5.
7. Schwartz RA, Blaszczyk M, Jablonska S. Generalized eruptive keratoacanthoma of Grzybowski: Follow-up of the original description and 50-year retrospect. Dermatology. 2002;205:348-52.
8. Mlacker S, Kaw U, Maytin EV. Use of photodynamic therapy and acitretin in generalized eruptive keratoacanthoma of Grzybowski. JAAD Case Rep. 2017;3:457-9.
9. Mascitti H, Masson A, Brunet-Possenti F, Bouaziz JD, Laly P, Mourad N. Successful treatment of generalized eruptive keratoacanthoma of Grzybowski with acitretin. Dermatol Ther. 2019;9:383-8.

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