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Case Report

Nasal Pseudolymphoma

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Abstract

Pseudolymphoma (cutaneous lymphoid hyperplasia) caused by various antigenic stimulations in which benign proliferation of polyclonal T and B lymphocytes is observed. Pseudolymphoma lesions have similar clinical and histopathological findings to those of cutaneous lymphoma. Some studies have reported the conversion potential of pseudolymphomas to cutaneous lymphomas. Nasal Pseudolymphoma etiology, clinical features, diagnosis and therapy is discussed in male patients diagnosed with spontaneous Pseudolymphoma at the age of 45.

Keywords: Pseudolymphoma, cutaneous lymphoid hyperplasia, cutaneous lymphoma, nasal

Introduction

Pseudolymphoma (cutaneous lymphoid hyperplasia) is a disease that develops as a result of various antigenic stimulations and in which benign T and B lymphocyte polyclonal proliferation is observed in the disease lesions. These lesions usually occur on the face but can also be seen on the chest and upper extremities. The lesions are asymptomatic, smooth-surfaced, and consist of hard papules or nodules in single or small regional clusters (1-3). They are clinically and pathologically similar to cutaneous malignant lymphomas. It is not always easy to distinguish the lesions from cutaneous lymphomas just by examining the clinical characteristics. Although they are defined as benign lesions, even cases showing progression to lymphoma have been reported in the literature (4).

In this case report, we aimed to discuss pseudolymphoma clinical diagnosis and treatment.

Case Report

45-year-old male patient admitted to another hospital and then to our clinic for further examination due to a lesion that started as acne on the tip of the nose but gradually grew approximately 3.5 months ago. It was identified from his history that the lesion started in the form of a red pimple on the nose and gradually grew. The patient had previously used antibiotic creams and oral antibiotics, but no recovery occurred in the lesion. Before the lesion, the patient did not have a history of any medication use, insect bites, or trauma. A hyperemic nodular lesion that was 20×15×15 mm in size, with a hard consistency, and separated from its local environment with sharp boundaries was detected on the nose, in the ear, nose, and throat examination of the patient, whose system and physical examination was normal (Figure 1). Complete blood count, erythrocyte sedimentation rate, and blood biochemistry examinations of the patient were within normal limits. A regular appearance was detected on the surface of the epidermis in the histopathological examination of the skin punch biopsy taken from the lesion. Lymphoid cell infiltration filling the whole dermis, showing an increase in the periadnexal regions, entering into the hair follicle epithelial sporadically, and consisting of mostly small cells and sometimes including a small number of large cells as well was observed under the subepidermal grenz zone in the dermis (Figure 2, 3). In immunohistochemical staining, nodular staining, which reveals follicular regions, was observed with CD20, whereas weak staining in interfollicular regions with CD3 and focal staining was observed in places conforming to follicle regions with CD10. Positive cells were detected in the tendency to cluster with Ki-67. No staining was observed with cyclin D1. CD21 and bcl-6 did not work technically (Figure 4). The patient was diagnosed with pseudolymphoma (cutaneous lymphoid hyperplasia) with existing clinical and histopathological findings. The patient was scheduled for a single dose of intralesional steroid therapy after oral and written informed consent was received. During the application, after deletion of the lesion with alcohol first, 20 mg/mL of triamcinolonacetonid mixture diluted in a fine-tipped syringe (gage 30) was prepared. Then, the lesion was entered with the needle groove facing up (epidermis) at a 60-degree angle (middle dermis/papillerdermis level) and after making sure that it was not being given intravenously, 0.2 mL of triamsinolonasetonid (20 mg/mL) mixture was slowly injected. A reduction in lesion was observed as

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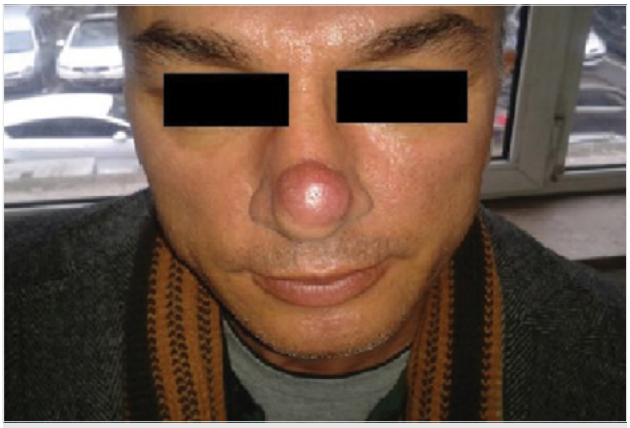

Figure 1. A hyperemic nodular lesion that was 20×15×15 mm in size with a hard consistency and separated from the local environment with sharp boundaries is observed

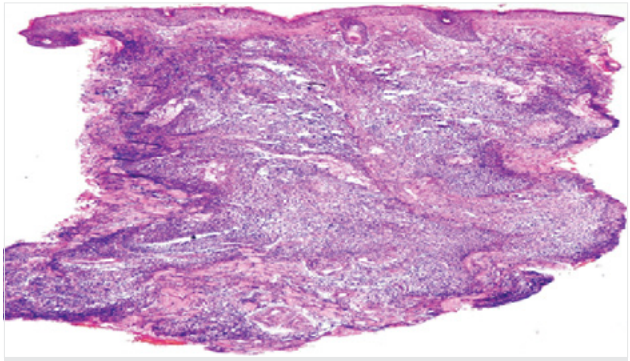

Figure 2. Lymphoid cell infiltration filling the whole dermis under subepidermal grenz zone in dermis, showing an increase in periadnexal regions, and consisting of mostly small cells are observed (H.E.×40)

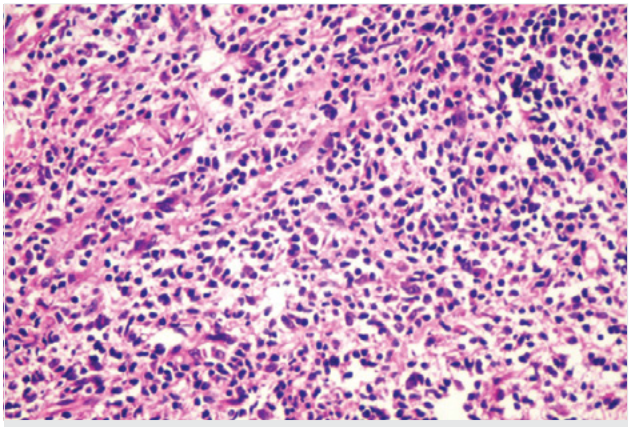

Figure 3. Lymphoid cell infiltration filling the whole dermis, consisting of mostly small cells, and sometimes including a small number of large cells is observed (H.E.×400)

with the first control of the patient to whom intralesional corticosteroid treatment was applied. During the 6-month follow-up period of the patient, the lesion completely regressed, and recurrence was not detected throughout this period (Figure 5).

Discussion

Pseudolymphoma (cutaneous lymphoid hyperplasia) is a disease that develops as a result of various antigenic stimulations and shows common features with cutaneous lymphomas, both histopathologically and clinically, and in which benign T and B lymphocyte polyclonal proliferation is observed (2, 3). It is formed by

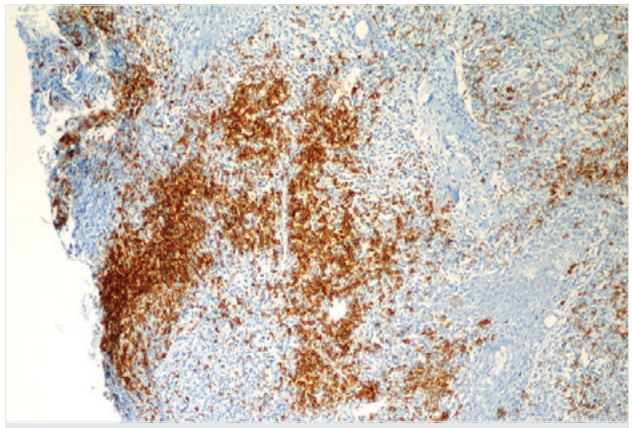

Figure 4. Immunohistochemical staining showing nodular staining that reveals follicular regions with CD20, weak staining in interfollicular regions with CD3, and focal staining in places conforming to follicle regions with CD10

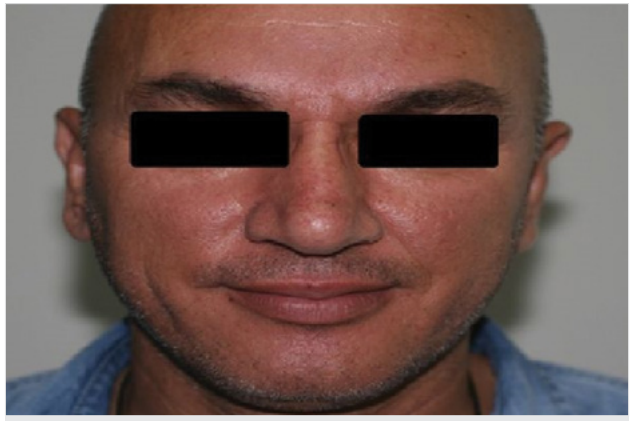

Figure 5. Complete regression of the nasal type lesion in the 6th month after a single dose intralesional steroid therapy of the patient is observed

the aggregation of lymphocytes in the skin in response to various stimuli. Various factors such as foreign antigens, arthropod bites and infestations, tattoos, vaccinations, traumas, impurity injection, and drugs may play a role in the formation and it may also occur idiopathically (4). There was no etiological cause in our case.

Pseudolymphomas progress as solitary or multiple lesions usually in the format of a nodule, tumor, or plaque. They most frequently settle on the face, especially on the nose, cheeks, forehead, and earlobes. Apart from this, they may be located on any part of the body, especially on the chest and back (3, 5). Pseudolymphomas have two clinical types: the nodular and diffuse type. The nodular type is encountered most frequently. It is usually seen 2–3 times more frequently in adults and females. It is more common in the black race (1). Systemic symptoms do not generally accompany the manifestation. Sometimes, the disease can even show spontaneous remission (1, 5).

Pseudolymphomas are clinically and pathologically similar to cutaneous malignant lymphomas (4). It is not always easy to distinguish the lesion from cutaneous lymphomas just by examining its clinical characteristics. Although they are defined as benign lesions, even cases showing progression to lymphoma have been reported in the literature (5). Therefore, these lesions should be distinguished from cutaneous lymphomas with histopathological studies (4, 6).

Even though the diagnosis of pseudolymphoma can be made histopathologically, it is not always easy to make a malignant or benign distinction of cutaneous lymphocytic infiltration. But different from lymphoma, it

having an infiltration polyclonal character is very important. However, there may be a more dominant cell type. Cutaneous pseudolymphomas histopathologically show a very exaggerated dense nodular infiltrate, primarily covering the dermis and decreasing toward the deep dermis and subcutaneous adipose tissue. Depending on the predominant cell type in the infiltrate, pseudolymphomas are divided into two groups, namely the B-cell and T-cell. While infiltration in a superficial, tape, or nodular pattern is observed in T-cell pseudolymphomas, nodular pattern infiltration usually occurs in B-cell pseudolymphomas (1-3). The histopathology of our patient was consistent with cutaneous pseudolymphoma.

Topical or intralesional steroid injection, cryotherapy, interferon alfa, local radiation, and surgical excision can be applied in the treatment of pseudolymphoma (1, 3, 6). If monoclonality is found in a localized pseudolymphoma lesion, full surgical removal of the lesion and local radiation treatment are also recommended, but there is no evidence to influence the prognosis positively and lesions that are not monoclonal initially can still progress to cutaneous lymphoma (1, 6).

Intralesional therapies are successfully performed today as simple, inexpensive, safe, and effective treatment methods. Intralesional injection is defined as a direct injection to a specific skin lesion in order to minimize the systemic side effects of a drug to be used for the treatment (7, 8).

The drugs most commonly used in the intralesional injection practices are corticosteroids. The most preferred corticosteroid preparation in applications is triamcinolone acetonide and triamcinolone diacetate (7). Dexamethasone and betamethasone are other corticosteroids that are more rarely preferred for intralesional applications (7-9).

Although intralesional corticosteroid injection is generally a quite safe application, there are some risks. The most common side effects are local side effects, such as atrophy, hypopigmentation, pain, bleeding, telangiectasia, hypertrichosis, folliculitis, delay in wound healing, ulcers, secondary infections, perilesional linear atrophy and hypopigmentation, allergic reactions, calcifications, and granuloma formation (8, 9). Atrophy and pigment changes can regress in weeks or they may become permanent for a long time or even completely. Even systemic side effects may very rarely occur, such as Cushing's syndrome, allergic reactions, adrenal suppression, syncope, ptosis, blindness, and hyperglycemia (9).

Intralesional interferon alpha therapy is another treatment method to be applied in patients with a single lesion with persistent pseudolymphoma. Interferon alpha can be used in pseudolymphoma treatment with its antiproliferative effect at the cellular level and in apoptosis induction. The non-use of intralesional interferon alpha applications commonly in the treatment of pseudolymphoma suggests the need for more detailed investigations into the side effects and recurrence rates after treatment (10).

Cryosurgery is another treatment method that is often preferred in the treatment of pseudolymphoma. 30–60-s freeze time is used in the treatment of pseudolymphoma. Depending on the type and depth of the lesion, one or two freeze-thaw cycles are applied. Freezing temperatures between –25°C and –50°C are preferred. The most important advantages of this method are that it is painless, does not cause bleeding, can be easily tolerated, and can be repeated. Special equipment requirements, the reduction of effect in deep lesions, differences in effects according to tissue density, delay in wound healing, and occasional occurrence of a scar are the significant disadvantages (11). Intralesional corticosteroid therapy is a cheap, effective, and safe treatment method that is used in the treatment of pseudolymphoma; when used in appropriate doses and frequency, side effects are rarely observed. A single dose of intralesional corticosteroid therapy was applied in the treatment of our patient, and shrinkage of the lesion was observed as of the first control.

The prognosis of pseudolymphomas is variable. Spontaneous recovery may occur, and also there may be permanent lesions lasting for many years. Although it has generally a benign prognosis, it was reported that sometimes they undergo malignant transformation. It is still uncertain whether these lesions undergo malignant transformation since the beginning or afterwards. Therefore, considering the possibility of malignant potential in long-term, clinical follow-up of the patients was reported to be appropriate (2). Recurrence was not observed in the 6-month follow-up of our patient.

Conclusion

In pseudolymphoma, if lesions demonstrate a change in clinical behavior or appearance or systemic symptoms are added to the picture, the risk of cutaneous lymphoma should be remembered and the patient should be evaluated in terms of cutaneous lymphoma and the diagnosis should be revised again.

Informed Consent: Written informed consent was obtained from patient who participated in this study.

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