

A Research Case Based on the Facial Linear Pigmented Lichen Planus

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Abstract: A 29-year-old male patient was found to have gray-blue pigmented spots on the right forehead and right mandible six months ago without obvious cause, and mild itching was not diagnosed and treated. The rashes gradually increased thereafter. After dermatological examination, it was found that the dermatological examination gray-blue pigmented patches were seen on the right forehead and right mandible, distributed linearly along the Blaschko line, brown-black patches on the right buccal mucosa, and normal buccal mucosa on the left. The histopathology of the facial skin lesions showed that the epidermis was hyperkeratosis, the basal layer pigment increased, the basal cells focally liquefied and degenerated, and appeared serrated, dermal pigment incontinence, superficial dermal inflammatory cell infiltration, and obvious perivascular inflammatory cell infiltration. The diagnosis was linear pigmented lichen planus.

Lichen planus refers to chronic inflammatory conditions involving mucous membranes, hair follicles and skin caused by unknown causes. Most of the affected population is middle-aged. After the illness, patients often develop red polygonal flat papules and plaques. Both linear lichen planus and pigmented lichen planus are common types of lichen planus. In this study, one case of facial linear pigmented lichen planus was selected as the object, and the study and analysis were carried out. The report is as follows.

1. Clinical information

The patient, a 29-year-old male, presented to the doctor for half a year due to facial gray-blue pigmentation spots. The patient reported that there was no obvious cause six months ago. He found gray-blue pigmented spots on the right forehead and right mandible with mild itching. He was not diagnosed and treated. The rash gradually increased. Before April, brown patches appeared on the right buccal mucosa without symptoms. The area of the rash gradually increased, so he came to see a doctor. Physical examination: No abnormalities in the system check. No history of hepatitis, no history of long-term medication, no history of autoimmune diseases, no history of long-term exposure, no history of similar illness in the family. Dermatological examination: gray-blue pigmented patches are seen on the right forehead and right mandible, which are distributed in a line along the Blaschko line, brown and black patches are seen on the right buccal mucosa, and the left buccal mucosa is normal, see Figure 1, Figure 2, Figure 3. Histopathology of facial skin lesions showed: hyperkeratosis of the epidermis, increased basal layer pigment, focal liquefaction and degeneration of basal cells, serrated, dermal pigment incontinence, superficial dermal inflammatory

cell infiltration, and obvious perivascular inflammatory cell infiltration, as shown in Figure 4. Figure 5. Diagnosis: facial linear pigmented lichen planus. Treatment: External use of weak hormones, oral vitamin C tablets, and sun protection. Lost to follow up.



Figure 1. Skin lesions on the right frontal part of the patient



Figure 2. The patient's right mandibular skin lesion



Figure 3. Lesions of the buccal mucosa on the right side of the patient

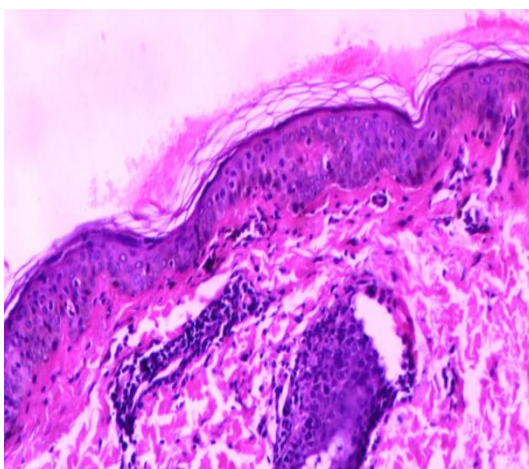


Figure 4. Histopathology of facial skin lesions of the patient (HE stain $\times 40$)

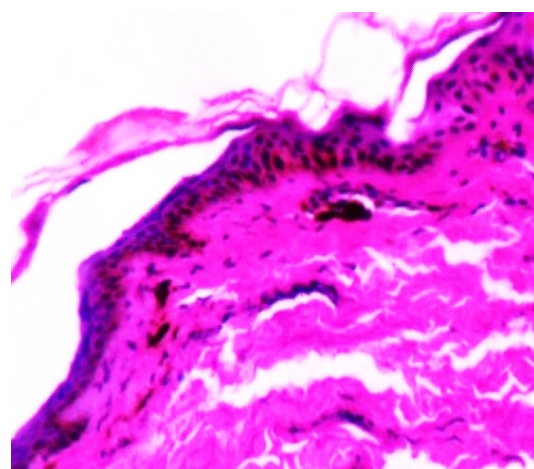


Figure 5. Histopathology of facial skin lesions of the patient (HE stain $\times 40$)

2. Discussion

Lichen planus is a chronic inflammatory skin condition. Purple-red polygonal pruritic flat papules are typical skin lesions. After the disease, it is easy to cause symptoms such as damage to the oral mucosa. Although the clinical cause of the disease is not yet clear, it is believed to be related to factors such as drugs, infection, immunity, and mentality. When the patient develops lichen planus, he feels itching consciously. And most patients' rashes are related to drugs, especially antimalarials and thiazide diuretics. There are many types of lichen planus, including pigmented lichen planus and linear lichen planus, follicular lichen planus, and hypertrophic lichen planus [1-2]. The histological manifestations are banded infiltration of lymphocytes in the superficial dermis and liquefaction and degeneration of basal cells. Due to the inconsistency of different patients with lichen planus, there are also certain differences in the choice of methods when carrying out treatment. In addition, during the period of lichen planus skin care, patients are recommended to have regular checkups. In this study, the selected patients had two manifestations of pigmented lichen planus and linear lichen planus. It has been reported that there is no clinically relevant research report for linear distribution of lichen planus, so this patient will do further research.

Linear lichen planus, also known as banded lichen planus, is a rare type of lichen planus, accounting for less than 1%. It is common in children. It is flat purple-red papules arranged continuously or intermittently into 0.5-3cm wide and narrow. Line-like damages such as those along the skin nodules, blood vessels or nerves, or along the Blaschko striae, can also be distributed longitudinally along the limbs, especially on the posterior side of the lower limbs and rare on the face. It has been reported [3] that the distribution of linear lichen planus can also be carried out along the distribution pattern of herpes zoster, which may be related to the previous infection with varicella-zoster virus. The histopathological changes of linear lichen planus are similar to classic lichen planus. The patients in this study have typical histopathological and skin lesion characteristics, so they can be judged as linear lichen planus. Linear lichen planus needs to be differentiated from linear epidermal nevus, linear lichen planus, and herpes zoster-like lichen planus.

In lichen planus, pigmented lichen planus belongs to another rare subtype, and its patients are mostly dark-skinned people [4]. Pigmented lichen planus lesions are gray-blue pigmentation patches, or brown-black macules, most of which are diffuse, may have itching, and rarely involve mucous membranes and palms and soles [5]. In addition, pigmented maculopapular rash without symptoms is a typical skin lesion of pigmented lichen planus, with parts such as the face and neck as the main disease site, and it can spread. With unilateral linear, spot-like or net-like distribution, diffuse pigmentation is more common. The histopathology of pigmented lichen planus has no clear specificity. The main manifestations are thinning and normal epidermis. Under normal circumstances, there is no thickening of the spinous layer, and basal cell vacuolation is clearly visible. At the same time, lichen-like lymphocytes can be found in the superficial dermis. Infiltration and pigment incontinence. Some studies pointed out [6], The pattern of lymphocyte infiltration in pigmented lichen planus has a certain correlation with the course of the disease. Old skin lesions are commonly seen with lymphocyte infiltration around small blood vessels in the dermis, and new skin lesions are mainly manifested by lymphocyte band infiltration. This patient is a young male with previous physical fitness, no history of long-term sun exposure, no long-term medication history, no similar medical history in the family, and the skin lesions are located on the same side surface and oral mucosa in linear distribution. The facial skin lesions are Gray-blue, buccal mucosal lesions are brown and black, combined with histopathological examination, it is diagnosed as facial linear pigmented lichen planus. It is clinically rare, and the specific cause needs further study.

At present, there is no definitive treatment method for the treatment of lichen planus. Because the occurrence of the disease may be related to light, the sun exposure is minimized, and sunscreen can be applied locally or physical sunscreen can be used. Instruct patients to take oral retinoic acid and hydroxychloroquine, as well as topical glucocorticoid preparations and tacrolimus ointment. Compared with linear lichen planus, pigmented lichen planus skin lesions are more likely to recur.

Some scholars have shown that [7], in 53.8% of patients with lichen planus pigmentosa, a 0.1% concentration of tacrolimus ointment for external use can achieve better therapeutic effects. Another study pointed out [8] that for the treatment of pigmented lichen planus, combined application of pulsed laser therapy can achieve effective therapeutic effects.

In addition to the need to carry out corresponding treatments, patients should also pay attention to their own personal hygiene in daily life, such as changing clothes frequently, and choose clothes with better air permeability and looseness as much as possible, so as to prevent infection. The occurrence of the situation plays a preventive role, and in terms of diet, patients need to be instructed to eat as little spicy food as possible [9]. Since the subjects selected in this study are linear pigmented lichen planus patients, which have two manifestations of pigmented lichen planus and linear lichen planus, patients can also treat their own symptoms according to the relevant matters that need to be paid attention to for different types of lichen planus. Pay attention to [10]. Among them, (1) For linear lichen planus, combined with the causes of lichen planus, it can be known that vitamin C can easily increase the increase of melanin in patients with lichen planus, thereby forming obstacles. The melanin cannot be transported normally in all layers of the skin, which can easily lead to lichen planus. It happened. Therefore, for patients with lichen planus, they should be advised to prohibit excessive intake of vitamin C, and to prohibit eating vitamin C-rich foods, such as hawthorn and cherries, bayberry and grapefruit. In addition, the occurrence of lichen planus is related to the lack of trace elements in the patient's body. Therefore, patients should strengthen their intake of tyrosine and copper, zinc and iron in daily life. For example, it is recommended that patients with lichen planus eat more peanuts, Animal liver and lean meat, etc. In addition, the occurrence of lichen planus symptoms is also related to the decline in the metabolism of melanin in the body, and the normal production of melanin is not possible. Therefore, people with lichen planus should be advised to increase the supplement of melanin in their daily life, including cuttlefish, black beans, and black rice. And black sesame seeds. (2) For pigmented lichen planus, pay attention to the consumption of health products. Although the application of health care products can bring certain benefits to the human body, not all health care products are beneficial, such as American ginseng, ginseng, etc. Although such foods can help people with non-pigmented lichen planus have physical fitness functions, And it also has the effect of prolonging life, but for patients with lichen planus pigmentosa, it can increase immune globulin, increase immune complexes, and hormone antinuclear antibodies, which can easily lead to aggravation of the patient's condition. In addition, pay attention to quit smoking and alcohol, because the nicotine contained in cigarettes is a harmful component, which can stimulate the blood vessel wall and aggravate the inflammation of the blood vessel, so it should be quit. Alcohol is warm and tends to aggravate the symptoms of internal fever in patients, so it is not recommended to drink. It is forbidden to eat donkey, dog, lamb, and venison. Such foods warm and hot can aggravate the patient's internal fever symptoms, and even aggravate the patient's condition, which may easily lead to adverse consequences. In addition, strengthen the prevention of colds and actively prevent various infections, including intestinal infections, lung infections and acute tonsillitis, which can easily lead to the occurrence of pigmented lichen planus and even aggravate the patient's condition.

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