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CASE REPORT

Pemphigus vulgaris and its clinical manifestations: case report

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Abstract:

Autoimmune diseases have been steadily increasing in recent decades. The antibodies produced interact with the tissue itself resulting in the formation of blisters that affect the skin and mucous membranes, called vesicle-bullous autoimmune pathologies, one of the most common being pemphigus vulgaris. Therefore, it is characterized as a chronic and rare disease, with cutaneous and oral manifestations. The lesions are characterized by the formation of blisters that break easily and give place to extensive ulcerations. Thus, it is necessary to know about the main cutaneous and oral clinical manifestations, as well as the clinical evolution of the disease so that an early diagnosis can be made, which can lead to successful treatment. The objective of this study is to present a clinical case of a patient diagnosed with pemphigus vulgaris and its clinical dermatological and oral manifestations at the beginning of the disease, as well as during the treatment confirmed by biopsy, histopathological examination, direct immunofluorescence and clinical findings. For data collection, questionnaires, intraoral and extraoral photographs of the face, armpits, chest, groin and genital mucosa were used. It was concluded that pemphigus vulgaris is a disease characterized by the formation of erythematous blisters and ulcers, which can reach any oral location. On the skin, the lesions progress rapidly in erosion and crusting formation, showing a symmetrical predilection for the chest, groin, armpits, scalp and face.

Keywords: Pemphigus; Signs and symptoms; Autoimmune diseases.

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INTRODUCTION

Immunologically mediated dermatological diseases are associated with the production of antibodies that act against specific structures of the skin and mucous membranes. These disorders have inflammatory and chronic characteristics. The interactions between the antibodies and the tisssue itself results in the formation of intraepidermal blisters that affect the skin and mucous membranes.

Pemphigus vulgaris is an autoimmune disease, rare, chronic and potentially lethal, of the skin and mucous membranes. The blisters or vesicles have variable diameters, with superficial or deep occurrence of clear, purulent or bloody serous content, which, once erupted, cause irregular surface erosions, with an erythematous center and painful symptoms. In addition, more than 50% of individuals affected by the disease develop oral lesions before skin lesions.

Blisters and superficial erosions affect any oral location, but the palate, tongue and labial / buccal mucosa are often involved. On the skin, lesions progress quickly to erosion and crusting formation. Localized or generalized lesions exhibit a symmetrical predilection for the chest, groin, armpit, scalp and face.

Pemphigus vulgaris is the most common type and affects according to Torres Neto *et al.* 0.5 to 3.2 people per year worldwide. It is relatively rare, especially in children and the elderly, and it occurs more frequently after the age of 40, affecting both genders. Despite its low occurrence in our country, it is considered an important autoimmune disease, due to the possibility of following a worrying clinical course when not diagnosed and treated in the initial phase. Due to the fact that oral lesions precede cutaneous lesions, it is up to the dentist to assume their share of responsibility in the early diagnosis of this disease, in order to improve the treatment prognosis.

This article reports the case of a patient diagnosed with pemphigus vulgaris disease and its dermatological and oral clinical manifestations at the beginning of the disease, as well as during treatment.

CASE REPORT

A 71-year-old white male patient, diagnosed with pemphigus vulgaris, sought a Higher Education Institution (HEI) in the city of Teresina-PI, more specifically a dental school clinic, for oral evaluation, complaining of painful injuries to the body and oral cavity and reporting diagnosis of pemphigus vulgaris. This study was carried out after submission and prior approval by the Research Ethics Committee - CEP of the Centro Universitário UniFacid, according to approval number 3,682,735.

The histopathological and direct immunofluorescence exam (Figure 1 A-B) requested by the medical team, together with the clinical findings, delivered to the dentists, confirmed the diagnosis of the disease. For this, a biopsy with a fragment was performed on a skin lesion on the left arm. Histopathological examination of skin biopsy showed epidermis with marked spongiosis with suprabasal acantholysis and blisters filled with cellular debris, neutrophils, acantholytic cells and rare eosinophils. In the dermis, a slight superficial and deep perivascular mononuclear inflammatory infiltrate was observed, with occasional eosinophils permeating, in addition to ectatic blood vessels, outbreaks of red blood cells and sparse melanophages. The immunofluorescence report revealed a negative result for the antibodies (fragment C3 of the complement system, IgA, IgG and IgM).

During the anamnesis, data were obtained regarding the general health of the patient, who did not have: obesity, depression, diabetes, osteoporosis, peptic ulcers, and adrenal suppression. The patient reported that the lesions of the disease had oral and skin manifestations, which initially affected the oral mucosa,

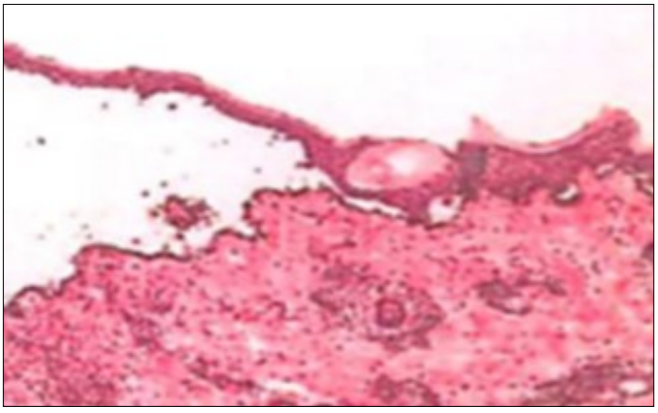

Figure 1A. Tests that helped to complete the diagnosis. Histopathological examination and direct immunofluorescence, respectively.

Anticorpos	Clone	Resultado	
* Fragmento C3 do sistema complemento	-	Negativo	ausência de imunidepósitos
* IgA humana (Imunofluorescência)		Negativo	ausência de imunodepósitos
* IgG humana (Imunofluorescência)		Negativo	ausência de imunodepósitos
* IgM humana (Imunofluorescência)		Negativo	ausência de imunodepósitos

Figure 1B. Tests that helped to complete the diagnosis. Histopathological examination and direct immunofluorescence, respectively.

with the appearance of blisters on the palate, tongue, lips, gums and cheeks, which ruptured easily, and which gave rise to multiple and extensive painful erythematous ulcerations. The lesions also affected the trunk (lesions close to the chest were the first skin manifestations), arms, armpit, face, thighs and groin (Figure 4A - 4B), associated with a burning sensation of great intensity. In addition to the oral mucosa, other mucous membranes were affected: nasal mucosa, genital mucosa, conjunctiva mucosa and anal mucosa (Figure 4C).

The extraoral physical examination revealed the presence of scaly erythematous ulcerated lesions in the region of the labial commissures, with the absence of cervical lymphadenopathy (Figure 2). In the intraoral examination, the presence of erythematous lesions in the region of the palate and part of the cheek mucosa, which also had a pseudomembrane, was observed; and pseudomembranous lesions in the region of the lingual belly, lateral of the tongue and gums (Figure 3). The patient's oral health was not satisfactory, with the presence of plaque, dental calculi, carious lesions and defective restorations.

Due to the clinical characteristics of pemphigus vulgaris being similar to other autoimmune conditions, it was reported by the patient that the medical team had difficulty in diagnosis. However, no other diagnoses were given until the disease was confirmed through biopsy, histopathological examination and direct immunofluorescence. During the investigation process, the semiological maneuver was not performed - Nikolsky's sign by the dentists since the diagnosis had already been confirmed by the medical team. The acute

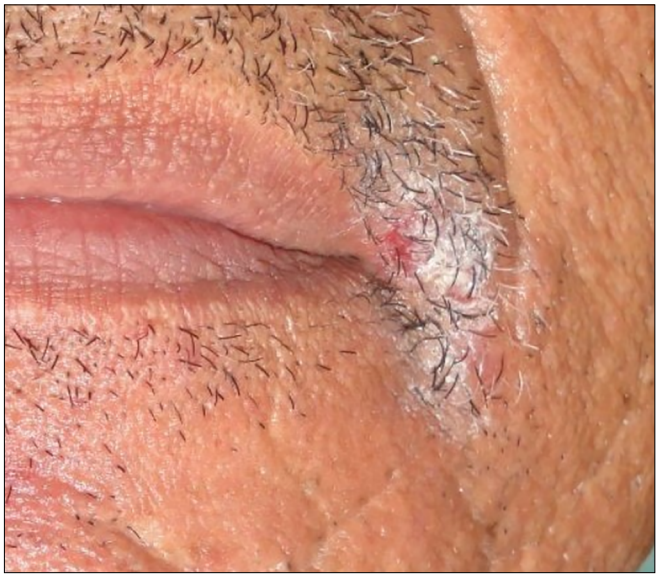

Figure 2. Presence of scaly erythematous lesions in the region of the labial commissures

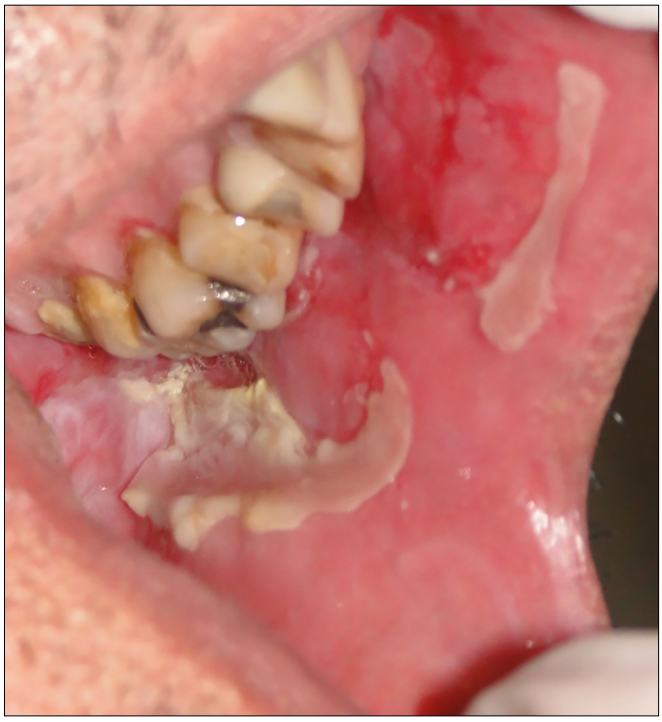

Figure 3. Intraoral examination showing the cheek mucosa and exudative, ulcerated, erythematous and pseudomembranous lesions caused by the disease.

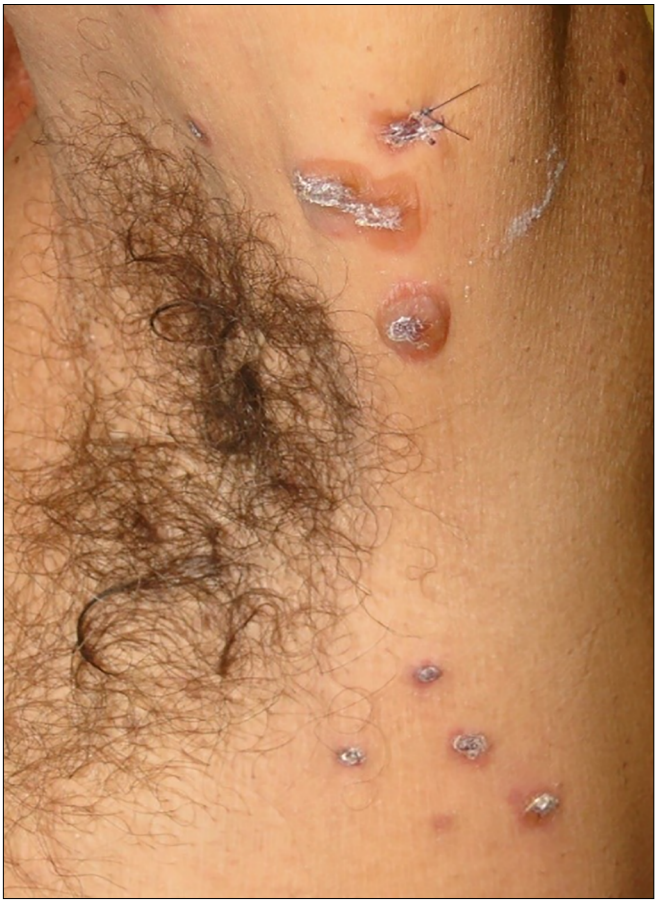

Figure 4 A. Skin lesions in the armpits and groin area. The lesions are characterized by being ulcerated and progressing rapidly in crusts.

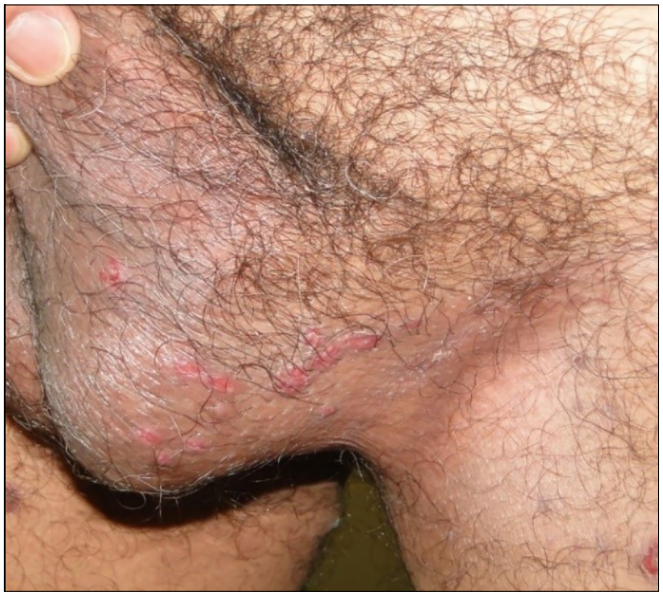

Figure 4 B. Skin lesions in the armpits and groin area. The lesions are characterized by being ulcerated and progressing rapidly in crusts.

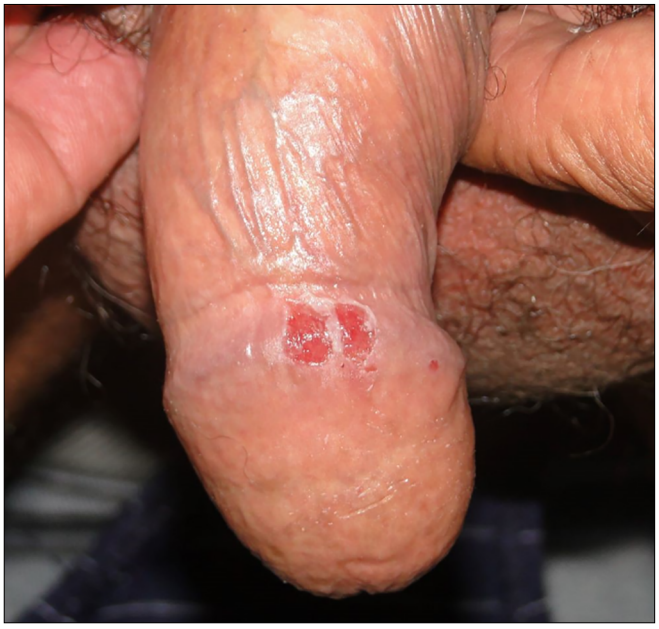

Figure 4C. Lesions on the genital mucosa.

clinical signs of the disease required different approaches to multiprofessional treatment, including dermatologist, dentist and nutritionist. Therefore, the clinical treatment of this patient was shared with these professionals.

Initially, for pemphigus control, the medical prescription consisted of high doses of corticosteroids (Prednisolone, 90 mg daily) plus the immunosuppressive agent (Azathioprine 150 mg / day), which was later changed to (Azathioprine 100 mg / day). The dental team prescribed the use of mouthwashes with bicarbonate solutions and topical corticosteroids, in addition to guidelines on oral hygiene (0.12% chlorhexidine without alcohol and extra soft toothbrush). It was also recommended that, after improvement of the acute clinical signs of the disease, the patient should return to the dental clinic for the performance of restorative and periodontal procedures.

During the following year, the patient no longer attended consultations for proservation and contact with him was only reestablished at the end of the second semester of the following year, when he returned to the dental clinic school, reporting continuity of systemic treatment. The daily dose of corticosteroid-prednisolone has been changed, currently taking (prednisolone, 10 mg daily) and azathioprine has been replaced by (mycophenolate mofetil, 2 tablets of 500 mg / day). The corticosteroid reduction occurred gradually.

In the intraoral examination, the presence of pseudomembranous ulcerated lesions was observed in the gums, in the cheek mucosa and in the tongue. The other structures had aspects of normality (Figure 5). The patient again received guidance on oral care and the need for periodontal treatment. Despite the clinical presentation of the disease constituting an acute clinical

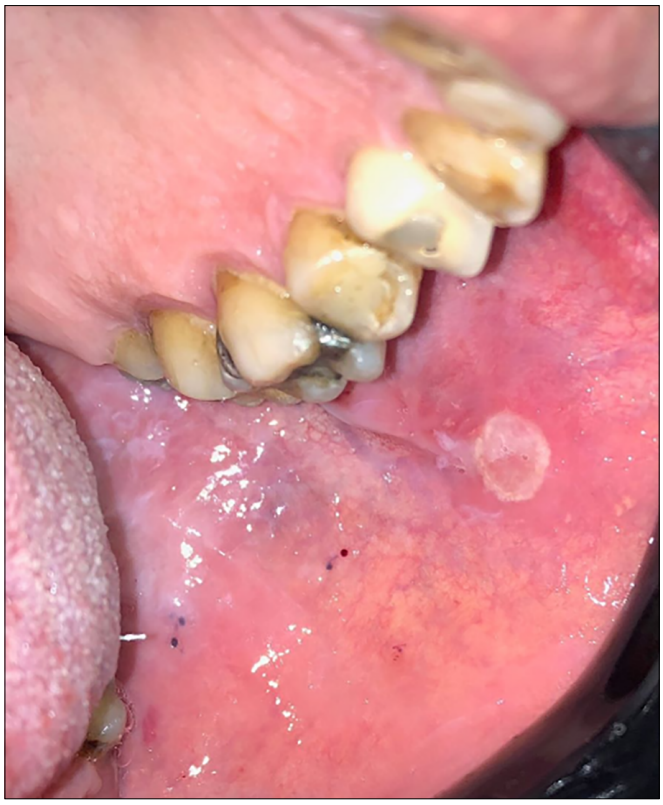

Figure 5. Intraoral examination of the cheek mucosa. The regression of the lesions is evident.

signs with the presence of painful blisters and ulcerations, the patient reported that this did not hinder his diet, which did not lead to weight loss and malnutrition.

During long-term treatment with corticosteroids, it is possible that there are already some changes caused by its continuous use. Changes possibly due to the side effects of corticosteroids have been observed, such as fluid retention. The patient also presented with a picture of deep venous thromboembolism in the left lower limb. In addition, the patient reported changes in mood, symptoms associated with depression and changes in some lifestyle habits such as clothing, after the diagnosis of the disease.

DISCUSSION

The early diagnosis of diseases favors greater possibilities of cure and the dentist is the initial link in the detection of oral lesions. In pemphigus vulgaris, the manifestations of the oral mucosa vary and may be the initial, most prevalent and / or symptomatic characteristic, or just a sign of disease. In this way, the dentist can be the first to identify oral lesions, and therefore, plays an important role in the early diagnosis and treatment of pemphigus vulgaris disease. It is up to the professional to monitor the patient and provide guidance on oral care, especially in the acute condition of the disease.

Lesions of the oral mucosa are usually the first to appear, especially in areas subject to frictional force, followed by mucous lesions in other places. In the case described, the first lesions appeared in the oral cavity (cheek mucosa, gums, tongue, palate and lips), followed by skin lesions (chest, arms, thighs, armpit, groin and face), presented as flaccid blisters and painful erythematosus ulcers with a burning sensation of great intensity. Other mucous membranes were also affected: nose mucosa, genital mucosa, conjunctiva mucosa and anal mucosa. There were no ocular manifestations in this case. The oral clinical manifestations of the disease can be confused with other pathologies, hence the need to join data from anamnesis, clinical data and complementary exams.

Espana et al. and Ohta et al. agree that oral blisters break easily. According to the patient's report, the blisters in the oral cavity broke easily, and after the lesions in the oral cavity, the disease had a rapid and aggressive course on the skin. The easy rupture of oral bubbles is convergent data. This suggests that the clinical examination should be done carefully, taking into account the painful symptoms caused by the lesions. Cruz et al. and Sticherling et al., show that the blisters or vesicles, once erupted, cause irregular surface erosions, with an erythematous center and painful symptoms. On the skin, the lesions are characterized by flabby blisters that progress quickly to erosions and crusting formation.

The patient's oral health was not satisfactory, with the presence of oral diseases such as caries, bacterial plaques and dental calculus. The study by Thorat et al. showed that the periodontal profile is worse in patients with pemphigus vulgaris and that its presence can contribute to the development and progression of the disease, concluding that these patients need periodontal monitoring. Jascholt et al. suggested that dental evaluation should include anamnesis and radiographic examinations to identify focus of infection. It was then necessary to provide guidance on oral care and the need for subsequent periodontal treatment after remission and disease control. This control is important in preventing opportunistic infections that may further compromise the patient's health status.

The work of Carli et al. describes for oral lesions the use of mouthwashes with bicarbonate solutions (which promotes an alkaline environment, interfering with microbial proliferation) and topical corticosteroids and that the treatment of oral lesions represents a real challenge. In the case under study, topical corticosteroids were used, and the dental team guided oral hygiene with 0.12% chlorhexidine without alcohol and extra soft toothbrush to control the biofilm. During the follow-up of the patient, it was possible to observe some injuries, once again confirming the importance of the dentist in performing frequent prophylaxis and maintaining oral hygiene to control the symptoms of the injuries.

The treatment used in this case was carried out with systemic corticosteroids (Prednisolone). Porro et al., explain that in moderate and severe cases of pemphigus vulgaris, systemic corticosteroid therapy (Prednisone) is the treatment of choice. Adjuvant medications, usually immunosuppressive medications such as Azathioprine, Mycophenolate mofetil, Methotrexate and Cyclophosphamide can be prescribed in refractory cases or with contraindications to corticosteroids to minimize side effects. After controlling the disease of the patient in question, the use of mycophenolate mofetil associated with corticosteroids was preferred for continuous use, replacing the Azathioprine used at the beginning of treatment.

During the treatment, possibly due to the side effects of long-term use of corticosteroids, greater fluid retention was observed in the patient's body, perceived through the swelling of the body. Hsu et al .; Leshem et al .; Mimouni et al. and Ramírez et al. described that it is still unclear, but there are several causes for venous thromboembolism

(VTE) in patients with pemphigus vulgaris and that hospitalization, common in patients with pemphigus, is an independent risk for VTE. The use of corticosteroids may also contribute to an increased risk of VTE.

Studies by Brandão et al. discussed that in patients with pemphigus vulgaris disease, in addition to physical complications, there is exposure of feelings and emotions that lead to changes in lifestyle, behavior and social life. In this case, the patient reported changes in mood and changes in some lifestyle habits, such as clothing, after diagnosis. The symptoms associated with depression are correlated with the study by Arbabi et al. who suggested the importance of assessing the mental health of patients with pemphigus vulgaris, since the highest rates of depression were observed in all age groups.

CONCLUSION

From the reported case, it can be concluded that the manifestations of pemphigus vulgaris disease can affect skin and mucous membranes. The manifestations of the oral mucosa vary and may be the initial characteristic of the disease. They are characterized by blisters and superficial and delicate erosions that affect any oral location, with the palate, tongue, and labial / oral mucosa frequently involved. In addition, there may be the presence of multiple and extensive ulcerations, covered by a pseudomembrane.The genital mucosa, nasal mucosa and connective mucosa are commonly affected, but other mucosa can be affected, such as: anal mucosa, larynx, esophagus, nose and genitalia. On the skin, lesions are characterized by vesicles or flabby blisters that progress quickly to erosion and crusting. These may exhibit a symmetrical predilection for the chest, groin, armpit, scalp and face.

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