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(CASE REPORT)

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Pemphigus vulgaris in a 59-year-old male: A case report on diagnosis and management

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Abstract

Pemphigus vulgaris (PV) is a rare autoimmune condition that causes painful blisters and sores, mainly in the mouth. Here in this case report 59-year-old man complaints of recurring oral ulcers for two months. After a detailed examination and biopsy, the patient was diagnosed with PV. His treatment included medications such systemic corticosteroids and antiviral medication, which provided a significant relief. This report emphasis the crucial role of early diagnosis and proper treatment in improving patients' well-being and overall quality of life.

Keywords: PEMPHIGUS VULGARIS; DEXAMETHASONE; SKIN BIOPSY; IMM_+UNOSUPPRESSIVE; BLISTERS

1. Introduction

Pemphigus vulgaris (PV) is a rare autoimmune disease that causes painful blisters and sores on the skin and, more often, in the mouth and other moist areas of the body. What makes PV especially challenging is that it's not caused by an infection or external irritant—it's the body's own immune system that mistakenly attacks healthy cells. Specifically, it targets key proteins called desmogleins, which help hold skin cells together. [1] When these proteins are damaged, the skin layers come apart, leading to blisters, open wounds, and a breakdown of the skin's protective barrier. [2]

PV usually starts in people who are middle-aged or older, with women appearing to be slightly more affected than men but rarely seen in men. For many, the first sign of the disease is painful mouth sores—so painful, in fact, that eating, drinking, or even talking can become very difficult. If left untreated, PV can spread to the skin, leading to severe discomfort and an increased risk of infections and other complications. [2]

Diagnosing PV can take time and often involves several steps. Doctors usually begin with a physical examination and then confirm the diagnosis using a skin or mouth biopsy. Special tests such as direct immunofluorescence (DIF) are performed to detect specific antibodies attacking the skin. Blood tests such as indirect immunofluorescence and ELISA - may also help track the disease over time and help in the management. [1] [3]

Over time available treatments for PV have greatly improved. Steroids are usually prescribed first because they work quickly to reduce inflammation and control blistering. However, long-term use of steroids can lead to serious side effects such as diabetes, osteoporosis and infection. To manage this, doctors often combine steroids with immunosuppressive drugs like azathioprine or mycophenolate mofetil—or newer targeted therapies like rituximab, which has shown strong results. With the right treatment plan, many people are able to control the disease and prevent side effect . [4]

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But PV isn't just a physical condition. The emotional and psychological burden can be just as severe. Living with constant pain, visible skin damage, and frequent hospital visits can take a major starin on mental health. Many patients experience anxiety, depression, and social withdrawal. Visible wounds can affect confidence and self-esteem, while the inability to eat or speak comfortably impacts day-to-day life. Caregivers and family members often feel the strain too, as they play a key role in supporting loved ones through relapses and recovery.

For all these reasons, managing PV requires more than just medications. Emotional support, family understanding, and open communication with healthcare providers are just as important. Early diagnosis, personalized treatment, and compassionate care can make a real difference in helping people with PV live better, healthier lives. [1] [2]

2. Case report

A 59-year-old male presented to the hospital with complaints of recurrent painful erosions in the oral cavity, specifically affecting the buccal mucosa, tongue, hard palate, and lips for 2 months, without any fluid-filled lesions on the body or genitalia. He had medical history included type 2 diabetes mellitus managed with insulin. Clinical examination revealed extensive oral erosions and localized left submandibular lymphadenopathy. Relevant laboratory and immunological test of the patient are shown in Table 1.

Table 1 Laboratory Investigations

Tzanck Smear	**No acantholytic cells**
Biopsy	Suggestive of vesiculobullous lesion favoring pemphigus vulgaris
Direct Immunofluorescence	Negative
Blood Counts	Elevated total counts (12060/μL)

A diagnosis of pemphigus vulgaris was confirmed through a skin biopsy, which revealed the characteristic signs of the disease under the microscope. Although the direct immunofluorescence (DIF) result was negative, the biopsy findings were enough to support the diagnosis.

During the patient's hospital stay, a combination of treatments was started to help control symptoms and prevent complications:

- Dexamethasone was given at an initial dose of 4 mg, later increased to 6 mg. This medication is a type of corticosteroid that helps calm the immune system and reduce the inflammation that's causing the blisters.
- On the fourth day, Prednisolone 40 mg was added for further manage the immune response. This is another corticosteroid that helps suppress the body's attack on the skin and mucous membranes.
- Acyclovir 400 mg, an antiviral medication, was prescribed to prevent infections like herpes, which can occur more easily when the immune system is weakened by the disease or its treatment.
- Azithromycin 500 mg, an antibiotic, was also given to prevent or treat any bacterial infections that can affect the open skin areas caused by the blisters.

Together, these treatments led to a significant improvement in the patient's symptoms during hospitalization.

3. Discussion

Pemphigus vulgaris (PV) is a rare and chronic autoimmune condition that often begins with sores in the mouth before spreading to other parts of the body. In this case, a 59-year-old man came to Dermatology OPD with persistent, painful oral ulcers that had been troubling him for past two months. His age and symptoms are quite typical for PV, which often affects people in the age of 40-60 years. Several studies—including one by Moien AB Khan.et al. (2024)—support this, reporting that the condition most commonly starts in middle-aged adults, with oral symptoms frequently being the first sign of the disease.[5]

Although pemphigus vulgaris is generally seen more often in women, it's important to note that men can be affected too. A study by Askin et al. (2020) looked at 320 patients with pemphigus vulgaris and found that while there were slightly more female cases (with a female-to-male ratio of 1.39), a large number of male patients were also diagnosed.

This shows that even though the condition is more common in women, men can still develop the disease and experience similar symptoms and severity, just like in the case presented here. [6]

Direct immunofluorescence (DIF) is usually a key tool for diagnosing PV, in this patient's case, the DIF test came as negative. But, the skin biopsy clearly showed features consistent with PV, which helped in confirming the condition. This is not entirely unusual sometimes negative DIF results can happen, especially when the disease is mostly confined to the mouth. According to Curtis J. Ingold et al. (2024), a biopsy can still provide a reliable diagnosis even when other tests fall short, especially in mucosal-dominant cases like this one.[7]

A Tzanck smear was also performed but did not show the typical "acantholytic cells" often seen in PV. This test can sometimes miss signs, particularly in oral lesions. Similar limitations have been noted in previous research by Wenxiu He and Kaiyi Li (2021), who showed that biopsy remains more dependable for mucosal cases. [8]

For treatment, the patient was started on systemic corticosteroids, such as Dexamethasone and later Prednisolone, to calm the overactive immune response. These medications are the first line treatment of PV management. In addition, Acyclovir, an antiviral drug, was prescribed to reduce the risk of viral infections like herpes, which people with weak immune systems are more vulnerable to. Azithromycin, a broad-spectrum antibiotic, was given to help prevent bacterial infections, which can occur in open wounds caused by the blisters. This combination of medications led to an improvement in symptoms during the hospital stay.

Abbreviations:

- PV: Pemphigus Vulgaris
- DIF: Direct Immunofluorescence
- T2DM: Type 2 Diabetes Mellitus
- MNGCs: Multinucleated Giant Cells

4. Conclusion

This case emphasizes how early diagnosis and prompt treatment can make a significant difference in managing pemphigus vulgaris, helping patients feel better and preventing the serious complications. Since this is a chronic condition, regular follow-ups and adjusting treatment as advised by the medical professionals keep in controlling the symptoms and ensuring the best possible quality of life.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript, and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

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