



International Journal of Health Care and Biological Sciences

Case Study

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A Case Study on Recurrent Bullous Pemphigoid

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Article History

Received on: 20-04-2021

Revised On : 04-06-2021

Accepted on : 28-06-2021

Keywords: Autoimmune disorder, Bullous pemphigoid, blisters, Dermatology.



Abstract

Bullous pemphigoid is a rare autoimmune disorder that primarily affects the skin. It is characterized by the development of large, fluid-filled blisters (bullae) on the skin surface. This condition is caused by an immune system malfunction in which antibodies mistakenly attack the layer of skin below the outermost layer (epidermis), leading to the separation of the layers and the formation of blisters. Diverse factors have been reported to play a role in triggering Bullous pemphigoid. Furosemide, Etanercept, Penicillin, Sulfasalazine, Light, and radiation. UV light therapy to treat certain skin conditions may trigger bullous pemphigoid. The diagnosis must be established by skin biopsy. A 76 yr male patient was admitted to the dermatology department with chief complaints of multiple fluid-filled lesions over the body for 20 days, and swelling of both legs for 15 days. Similar complaints seen in the past 10 years. Based on subjective and objective parameters, the patient suffers from Bullous pemphigoid. Treatment typically involves the use of immunosuppressive medications to control the immune system's response. Corticosteroids, both topical and systemic, anti-histamines are commonly prescribed. The patient's condition is better.

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Introduction

Bullous pemphigoid (BP) is a chronic autoimmune blistering disorder that primarily affects the skin. This rare condition is characterized by the formation of large, fluid-filled blisters, known as bullae, on the surface of the skin. Bullous pemphigoid is caused by an immune system malfunction in which the body's defense mechanisms mistakenly target components of the skin, leading to the separation of skin layers and the subsequent development of blisters [1]. The key features

of bullous pemphigoid include intense itching, which often precedes the appearance of blisters and the distribution of these blisters on various parts of the body. While the condition primarily affects the skin, mucous membranes, such as those in the mouth and eyes, may also be involved in some cases [2]. Although rare in children, it can occur at any age. The diagnosis of bullous pemphigoid typically involves a combination of clinical examination, skin biopsy, and laboratory tests. Direct immunofluorescence testing of a skin biopsy is a common method used to confirm the presence of immune system components in the affected skin. The treatment of bullous pemphigoid often involves the use of Corticosteroids, both topical and systemic, which are frequently prescribed [3].

CASE PRESENTATION:

- A 76-year-old male patient was admitted to the dermatology department with chief complaints of multiple fluid-filled lesions over the body for 20 days. The history of the present illness is itching all over the body. Similar complaints in the past, fluid-filled lesions over the bilateral wrist 10 years back, past medication history includes Betamethasone Dipropionate 0.05%W/W cream, Rabeprozole sodium, and Domperidone capsules, Azithromycin 500, hydroxyzine hydrochloride tablets. Then the lesions got resolved but he again developed similar.
- Not a known history of DM and HTN. Normal S1 and S2 heart sounds. Nail-longitudinal, hypo pigmented plaques over the skin [Figure 1]. Scalp- Multiple clear fluid-filled vesicles and erosions positive, peripheral pulses were normal. Temperature: 98.4°F, Pulse rate: 76 bpm, Respiratory rate: 20 CPM, BP: 130/80 mmHg, Erythrocytic Sedimentation Rate is highly decreased over 50mm/hr. Based on subjective and objective parameters; the patient suffered from Bullous Pemphigoid.



Figure 1: Hypo pigmented plaques over the skin.

In this case, the patient is treated with the following medications:

- Tab. Clavu M625mg OD-type antibiotic has been effective in bullous pemphigoid
- Tab. Cetrizine 4 mg - antihistamine used to relieve symptoms of itching
- Inj. Dexamethasone 2cc OD- long-acting corticosteroid, it decreases inflammation
- Tab. Doxycycline 100mg OD-used to decrease further bacterial infection on the skin
- Tab. Prednisolone-steroid medication used to treat itching
- Inj. Avil - Pheniramine maleate 2cc OD IM- used to treat itching condition

- Tab. Pantop 40mg - pantop used as an anti-ulcerative
- Tab. Nicotinamide- Vitamin B3 supplement

Discussion

The global incidence was 0.0419 per 1000 person, the autoimmune nature of bullous pemphigoid and how the immune system targets components of the basement membrane, particularly BP180 and BP230[4]. Previous studies have demonstrated the role of complement fragment C5a and C5a-C5aR interaction in mast cell degranulation, which causes the formation of blisters in BP. Bullous Pemphigoid affects men and women equally. You may be more likely to get bullous pemphigoid if you have a neurological disorder, BP characteristically affects the elderly and is seen mainly in patients older than 70 years. Diagnostic methods used for bullous pemphigoid; including skin biopsy, direct immunofluorescence, and serological tests. Current therapy for Bullous pemphigoid includes Topical corticosteroids, systemic corticosteroids are the first line treatment and doxycycline is the mainstay of initial treatment for bullous pemphigoid. Additional immunomodulatory therapies are often added to minimize the adverse effects of chronic corticosteroid therapy or to augment improvement in the disease. One of the new treatments for bullous pemphigoid is avdoralimab, a monoclonal antibody that specifically targets C5aR1[5-8].

Conclusion

In conclusion, managing bullous pemphigoid requires a comprehensive approach that combines medical interventions, such as corticosteroids and immunosuppressive drugs, with supportive care. Early diagnosis and prompt treatment are crucial to alleviate symptoms, prevent complications, and improve the overall quality of life for individuals affected by this condition. Despite the challenges associated with bullous pemphigoid, ongoing research and advancements in medical understanding provide hope for more targeted and effective therapies in the future. Additionally, raising awareness about the condition and fostering a supportive community can contribute to a better understanding of bullous pemphigoid and enhance the well-being of those affected by it.

Ethical Considerations

Ethical support was received from King George hospital (KGH), Visakhapatnam, Andhra Pradesh.

Acknowledgment:

We acknowledge the continuous support from the H.O.D of the general medicine department superintendent of King George Hospital [KGH]for completing the study.

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