



## PATIENT COMPLIANCE IN MANAGEMENT OF PEMPHIGUS VULGARIS

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### Abstract

**Introduction:** - Pemphigus vulgaris (PV) is a potentially fatal autoimmune, intraepithelial acantholytic disease characterized by flaccid blisters and erosions of the skin and mucous membrane. Patient compliance is the extent to which the actual behavior of the patient coincides with medical advice and instructions; it may be complete, partial, erratic, nil, or there may be over-compliance. The aim of the study was to determine patient compliance in treatment of pemphigus vulgaris and improvement in quality of life.

**Materials and methods:** - A retrospective study was conducted on patients who visited the Oral Medicine Department from 2019 - 2022. Patients who are histologically diagnosed with Pemphigus vulgaris were included.

**Results:** - Out of 38 patients, 6 patients did not report for follow-ups, 16 patients were irregular for follow-ups and partial resolution of the lesion was observed and 16 patients reported for regular follow-ups and their lesions status had completely healed.

**Conclusion:** - The goal of management of pemphigus vulgaris is to reduce the severity of lesions, prevent fresh vesicles and ulcers forming and achieve complete remission and control.

**Keywords:** Patient compliance, pemphigus vulgaris, treatment outcome

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## 1. Introduction

Pemphigus vulgaris (PV) is a potentially fatal autoimmune, intraepithelial acantholytic disease characterized by flaccid blisters and erosions of the skin and mucous membrane.(1) The word pemphigus comes from the Greek word *pemphix*, which means blister.(2) It is mediated by circulating desmoglein-reactive autoantibodies directed against keratinocyte cell surfaces.(3) Both genetic and environmental factors are associated with the onset of pemphigus. It is a polygenic disease with an increased prevalence of low titers of disease-associated autoantibodies in healthy first degree relatives of patients.(4) Environmental factors include viruses (such as herpes simplex), dietary factors, and physiological and psychological stressors. Several drugs have been implicated in the cause of pemphigus such as thiol group of drugs (e.g:- captopril, carbimazole, and penicillin), phenol drugs (e.g:- rifampicin, levodopa and aspirin) and non thiol, non phenol drugs (e.g:- calcium channel blockers, ACE inhibitors and nonsteroidal anti-inflammatory drugs).(5)The underlying mechanism responsible for lesions in PV is the binding of IgG and sometimes IgA autoantibodies to transmembrane glycoprotein adhesion molecules present on desmosomes called desmogleins.(6)Desmoglein 1 (Dsg1) is the dominant glycoprotein expressed in the skin and though also present throughout the epithelium in mucous membranes, the dominant molecule in mucosal desmosomes is desmoglein 3 (Dsg3).The classic lesion of PV is a thin-walled bulla arising on normal skin or mucosa. The blister or bulla rapidly breaks but may continue to extend peripherally, eventually leaving larger areas denuded of skin.(7) A characteristic sign of PV is the Nikolsky sign which is elicited by application of gentle lateral pressure to an erosion or blister.(8)

Patient compliance is the extent to which the actual behavior of the patient coincides with medical advice and instructions; it may be complete, partial, erratic, nil, or there may be over-compliance.(9) Compliance can also be viewed in terms of the results of taking medication. Compliance as an

outcome is defined as ‘the number of doses not taken or taken incorrectly that jeopardize the therapeutic outcome’, or ‘the point below which the desired preventive or desired therapeutic result is unlikely to be achieved’.(10) Other terms such as adherence or therapeutic alliance are sometimes preferred to compliance.(11) The main objective in the treatment of PV is to control the disease, prevent relapses and avoid adverse effects associated with the prolonged use of steroids and immunosuppressive agents. Systemic corticosteroids remain the gold standard treatment for pemphigus vulgaris.(8) Because of the severe side effects of corticosteroids, treatment is combined with other immune modulating drugs and/ or rituximab to keep the steroid dose as low as possible.(2) If a patient is not regular to follow up visits, the treatment outcome will be poor.(11,12)Our team has extensive knowledge and research experience that has translate into high quality publications (13–22)

The aim of the study was to determine patient compliance in treatment of pemphigus vulgaris and improvement in quality of life.

## 2. Materials and Methods

A retrospective study was conducted on patients who visited the Oral Medicine Department from 2019 - 2022. Patients who are histologically diagnosed with Pemphigus vulgaris were included. The results obtained were processed using SPSS software and descriptive statistical analysis was made.

## 3. Results

Thirty eight patients were included in this study who were histologically diagnosed with Pemphigus vulgaris. Out of thirty eight patients, five patients were males and thirty three were females. Six patients did not report for regular follow-ups, sixteen did not come properly for follow-ups and partial resolution of the lesion was observed and sixteen patients reported for regular follow-ups and their lesions status was completely healed.



**Figure 1:-** Pre-operative.



**Figure 2:-** Postoperative.



**Figure 3:-** Pre-operative.



**Figure 4:-** Postoperative.



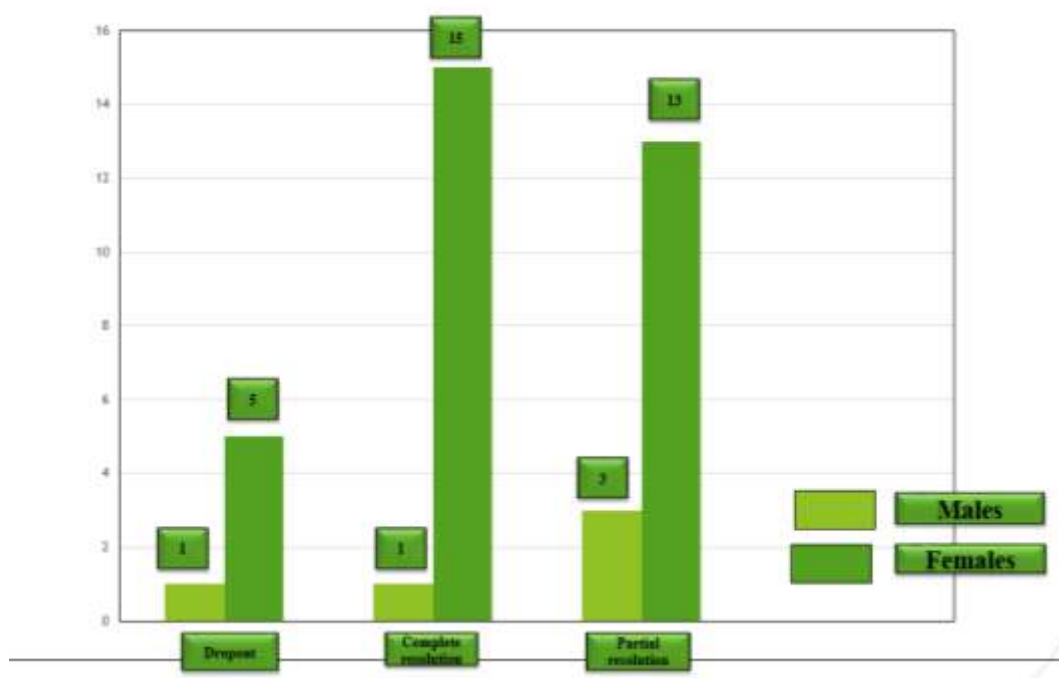
**Figure 5:-** Pre-operative.



Figure 6:- Postoperative.

S. No	No. of males	No. of females	Lesion status		
			Complete resolution	Partial resolution	Dropout
1)	5	33	16	16	6

Table :- The above table showing number of males and females and their lesion status.



Graph :- The above graph represents the number of males and females and their lesion status.

#### 4. Discussion

The care of patients does not only end with the completion of a definitive treatment plan but also involves a period of regular treatment follow-ups. (10) This study shows oral mucosal lesions if not healed for a long period of time due to irregular follow ups have a negative impact on the quality of life of patients. Approximately 50% of patients do not take medications as prescribed. (10,11) Patient's health could be unnecessarily compromised because of non compliance to instructions for the timing, dosage, and frequency of their medications. Unfortunately, when it comes to improving patient compliance with medication, every patient is different. (23) The problem of patients not understanding their disease or its importance and their noncompliance with their physicians' recommendations is one of the biggest reasons for poor treatment outcomes. (24) Estimates of patients' compliance with using medications as recommended vary from 25% to 50%, with the likelihood that assessments are not overestimated because the most common approach for assessing noncompliance is patients' recounting of activity. (25,26) Identifying the underlying causes of patient noncompliance can help physicians or dentists to determine the appropriate intervention strategies for each patient. (27)

To our knowledge, this is the first time that a correlation of patient compliance in management of pemphigus vulgaris is established. Hence, the present study was carried out to a specific objective to evaluate patient's compliance and reasons for noncompliance with recall protocols. Fedder stated that 'a third of patients always comply, a third never comply and a third sometimes comply'. (27) Luscher and co-workers reported that 80% compliance to a medication regimen for hypertension lowered blood pressures to a normal level. (28) Olson and coworkers reported that a compliance rate of 80% was necessary for therapeutic results in children with streptococcal pharyngitis, but 33% compliance reduced the rate of contracting streptococcus infections in children taking oral penicillin as a prophylactic for rheumatic fever. (29) The compliance rate for long-term medications used for prevention, treatment, or cure can range from 33 to 94%. Dracup and Meleis et al stated that the most well established health care regimens are worthless if a patient chooses not to comply with the recommendations of the healthcare system and not following regular follow ups. (30) The main reasons for noncompliance include casual attitude, financial constraints and lack of awareness. Discrepancies in the regularity of follow-up appointments could be explained by ineffective communication and lack of understanding. (27) Based on our findings, we strongly propose that patients be educated with

regard to the nature of their illness, prognosis, the potential for recurrence and clear action plans for when their problems do not improve. It is the responsibility of the dentist to ensure that their patients are aware of the importance of regular follow-up examinations.

#### 5. Conclusion

The primary objective of the therapeutic management of PV is initially to control the disease, heal the bullous skin and mucous lesions, and minimize the associated functional impairment and prevent recurrence.

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Nil

#### CONFLICT OF INTEREST

Nil

#### 6. References

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