

ORIGINAL RESEARCH

Evaluation of Prevalence of Pemphigus Vulgaris in a Known Population: An Institutional Based Study

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ABSTRACT

Background: Pemphigus vulgaris is the most frequent and most severe form of pemphigus, occurring universally, usually between 40 and 60 years of age. The present study was conducted to assess the prevalence of Pemphigus Vulgaris in a known population.

Materials & Methods: The present study was conducted over a period of 6 months in the Department of Dermatology, L. N. Medical College & Research Centre, Bhopal, Madhya Pradesh (India) to assess the prevalence of Pemphigus Vulgaris in a known population. All the participating patients were asked to fill up a simple performa. The *P*-values of 0.05 or less were considered to indicate statistical significance. The statistical analysis was conducted using SPSS version 20 (IBM Corp., Armonk, NY, USA).

Results: A total of 490 subjects were included in the study. Out of which 80 subjects had Pemphigus vulgaris (16.32%). Pemphigus vulgaris was prevalent in females (80%).

Conclusion: The study concluded that the prevalence of Pemphigus vulgaris in a known area was 16.32% & it was prevalent in females.

Keywords: Pemphigus vulgaris, Prevalence, Oral Lesions, Cutaneous Lesions.

INTRODUCTION

Pemphigus is a group of rare skin disorders that cause blisters and sores on the skin or mucous membranes, such as in the mouth or on the genitals. Pemphigus is not to be confused with bullous pemphigoid, another blistering skin condition.^{1,2} Of the four main types of pemphigus, pemphigus vulgaris is the most common; pemphigus foliaceus, pemphigus vegetans, and pemphigus erythematosus are less common.^{3,4} Pemphigus vulgaris (PV) is a debilitating dermatologic condition that is autoimmune in nature. It can be life threatening and can have a mortality rate between 5 and 15%.⁵ PV has an average age of onset of 40–60 years.⁶ In the few hospital-based studies of the epidemiology of pemphigus vulgaris, the reported incidence varied between 0.076 and 1.6 per 100 000 person years.^{7,8} Several studies have suggested a higher incidence in women.^{8,9} The clinical manifestation of PV may present mucosal or mucocutaneous involvement. Nearly all patients present mucosal lesions, mainly in the oral mucosa, with or without cutaneous lesions. Oral lesions are the first manifestation in 50%-70% of cases and occur in 90% of patients during the course of the disease.

Cutaneous involvement can be localized or generalized. Most patients develop flaccid blisters of clear content on normal or erythematous skin. The blisters break easily, resulting in painful erosions that bleed easily. Skin lesions can be observed in any location, but there is a predilection for the trunk, groin, armpits, scalp, and face; the palms and soles are usually spared. These erosions become covered by crusts, with no tendency to heal.¹⁰ The present study was conducted to assess the prevalence of Pemphigus Vulgaris in a known population.

MATERIALS AND METHODS

The present study was conducted over a period of 6 months in the Department of Dermatology, L. N. Medical College & Research Centre, Bhopal, Madhya Pradesh (India) to assess the prevalence of Pemphigus Vulgaris in a known population. Before the commencement of the study, ethical approval was taken from the Ethical Committee of the institute and informed consent was obtained from the patient. All the participating patients were asked to fill up a simple performa including the details like date, investigations required for pemphigus, diagnosis based for pemphigus. As for the statistical analysis, frequencies were calculated to describe the characteristics that were studied. The *P*-values of 0.05 or less were considered to indicate statistical significance. The statistical analysis was conducted using SPSS version 20 (IBM Corp., Armonk, NY, USA).

RESULTS

A total of 490 subjects were included in the study. Out of which 80 subjects had Pemphigus vulgaris (16.32%). Pemphigus vulgaris was prevalent in females (80%).

Table 1: Prevalence of Pemphigus vulgaris

Prevalence of Pemphigus vulgaris	N(%)
Present	80(16.32%)
Absence	410(83.67%)
Total	490(100%)

Table 2: Prevalence of Pemphigus vulgaris according to gender

According to gender	N(%)
Males	16(20%)
Females	64(80%)
Total	80(100%)

DISCUSSION

Pemphigus vulgaris (PV) is an autoimmune disease that results in blisters on cutaneous and mucosal surfaces.¹¹ Pemphigus is derived from pemphix, the Greek word for blister. Pemphigus was first described in 1788 by Stephen Dickson, who observed a patient with a blister on her tongue.¹² Although PV has not been shown to be contagious as initially thought, there have been possible triggers identified that might induce PV in patients with other autoimmune disorders.¹¹

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Titou Hicham, et al found that 67.7% of patients presented a mucocutaneous pemphigus vulgaris. Male-female sex ratio was 2.4.¹³

Serwin AB, et al analyze the incidence of pemphigus vulgaris (PV) and pemphigus foliaceus (PF) in Podlaskie Province (North-East Poland) in years 2001–2015 with regard to patients' age, gender, and residency. Sixty-six cases of pemphigus were diagnosed in the period analyzed: 44 cases of PV (66.67%) and 22 of PF (33.33%). Female to male ratio was 2.88. The average incidence of PV and PF together was 3.67 ± 2.19 per one million inhabitants. In

females the incidence was 5.34 ± 3.20 and in males, 1.90 ± 1.91 ($P < 0.05$). The incidence in inhabitants of rural areas was 4.96 ± 4.07 and those of urban areas, 2.70 ± 2.01 ($P < 0.05$). The age of the pemphigus onset was 54.69 ± 12.58 for PV and 64.24 ± 13.33 for PF ($P < 0.05$). The majority of PV and PF patients were residents of urban areas and rural areas, respectively.¹⁴

Svecova D aimed to analyze long-term outcomes in patients with PV, focusing on factors that may influence the prognosis of the disease, including the phenotype of PV, age at onset, multiplicity of mucosal involvement, relapse and remission rates, and survival functions. A total of 79.5% of patients were identified as having mucocutaneous PV. The female : male gender ratio was 1.58; in severe PV, this increased to 2.8. The difference between the genders in age at onset was statistically significant ($P = 0.05$). Furthermore, multiple mucosal involvements in the oral cavity and at other sites were associated with severe mucocutaneous PV. Multiple relapses occurred more frequently in patients with severe PV than in those with mild PV ($P = 0.001$). The remission survival of females was longer than that of males ($P = 0.003$).¹⁵

CONCLUSION

The study concluded that the prevalence of Pemphigus vulgaris in a known area was 16.32% & it was prevalent in females.

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