

**Original article:**

## **Study of frequency and pattern of vesiculobullous lesions of the skin in Maharashtra population**

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**Abstract:**

**Introduction:** The present study was undertaken to analyze the pattern of vesiculobullous skin disorders in and around Solapur. This being an analysis of clinical presentation and biopsy material, it is expected to provide a fairly good estimate of patterns of vesiculobullous disorders of skin.

**Material and methods:** This prospective study was carried out in the Department of pathology in Dr.V.M.Govt. Medical College and Chhatrapati Shivaji Maharaj Sarvopchar Rughalaya, Solapur . This histopathological study was carried out in collaboration with the Department of Skin and V.D. in the same institute.

**Result:** A total no. of 50 cases were studied, of which 12% were pemphigus vulgaris, 12% were pemphigus foliaceus and 8% were bullous pemphigoid.

**Conclusion:** This emphasizes the importance of skin biopsy in diagnosis of vesiculobullous disorders of skin.

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**Introduction:**

The present study was undertaken to analyze the pattern of vesiculobullous skin disorders in and around Solapur. This being an analysis of clinical presentation and biopsy material, it is expected to provide a fairly good estimate of patterns of vesiculobullous disorders of skin. However, there is bound to be an element of selection. Pooled data from other hospitals would give a better picture of the prevalence of vesiculobullous diseases; as it occurs in general population. Also this study was done over a period of two years; hence the number of cases studied was not large enough to permit any generalization.<sup>1,2</sup>

**Material and methods:**

This prospective study was carried out in the Department of pathology in Dr.V.M.Govt. Medical College and Chhatrapati Shivaji Maharaj Sarvopchar Rughalaya, Solapur . This histopathological study was carried out in

collaboration with the Department of Skin and V.D. in the same institute.

Detailed history, physical examination alongwith routine investigations were carried out. Provisional clinical diagnosis was recorded and the data was collected and described as in proforma for case study.

In this study, the patients with vesiculobullous lesions attending the outdoor of the skin department as well as those admitted in the same ward were selected.

When lesion was selected for biopsy the skin surface was cleaned with a spirit swab. Local anesthesia was obtained by infiltration under the lesion of 2% lignocaine solution. Adrenaline 1:1,00,000 was added to greatly reduce the bleeding. Injection was made deep in to the corium and subcutaneous tissue, 6 mm to 4mm punch biopsy provided an adequate amount of tissue for diagnosis of most skin lesion.

Sometimes excisional scalpel biopsy was done.

Intact vesicles or bullae was included.

Biopsy specimen was kept in 10% formalin for 24 hours for proper fixation. Amount of fixative solution was about 20 times the volume of the specimen.

Tissue procession and Histology section:

After fixation routine specimens were processed in an automatic processor. After processing, the specimen is cut on rotary microtome in to sections 5 to 7 microns thick.

Staining: The routine sections was stained with hematoxylin and eosin and examined by conventional light microscopy.

Special Test: Tzanck Test:

Microscopic examination of the cells obtained from the base of vesicles bullae may reveal the presence of giant epithelial cells and multinucleated giant cells (containing 10 to 12 nuclei) in herpes simplex, herpes zoster and varicella. Material from the base of a vesicle obtained by gentle curettage with scalpel was smeared on glass slide stained with Giemsa's stain, and examined for the presence of giant epithelial cells, which are diagnostic.

**Results:**

**Table No. 1 - Incidence of different histological types of Vasiculobullous Lesions of the skin**

Vesiculobullous lesions	Total no. of cases	percentage
Pemphigus vulgaris	06	12
Pemphigus foliaceus	06	12
Bullous pemphigoid	04	8
Pemphigus vegetans	01	2
igA pemphigus	02	4
Bullous erythema multiforme	02	4
Toxic epidermal necrolysis	06	12
Darier's disease	02	4
Subcorneal Pustular Dermatitis	01	2
Chicken pox	02	4
Herpes zoster	02	4
Chronic bullous dermatosis of childhood	01	2
Epidemolysis bullosa simplex	01	2
Bullous impetigo	01	2
Impetigo contagiosa	03	6
Bullous SLE	01	2
Epidermolysis bullosa dystrophica	01	2
Allergic contact dermatitis	02	4
Miliaria crypstallina	02	4
Friction blister	01	2
Transient acantholytic dermatosis of pemphigus	01	2

follaceous subtype		
Epidermolysis bullosa acquisita	01	2
Total no. of cases	50	100

A total no. of 50 cases were studied, of which 12% were pemphigus vulgaris, 12% were pemphigus foliaceus and 8% were bullous pemphigoid.

**Discussion:**

A total of 50 cases were studied in two years. The vesiculobullous disorders constituted 25% of all skin biopsy specimens received. Of the various bullous disorders, pemphigus and its variants were the most common (30%). Similar findings 29/66 (44%) has been reported by Kanwar A.J. et al<sup>3</sup> (1987).

All the patients in the present study were between 3<sup>rd</sup> to 5<sup>th</sup> decade. Sehgal V.N. et al(1981) in his study on pemphigus from India reported that 62% of patients had the disease by the age of 40 years. Kanwar A.J. (1987) found most of the patients in the age group 45 to 60 years, which is slightly older age group in comparison with present study.<sup>3,4</sup>

Males and females were equally affected in our study ( M:F 3:3)Lever (1984) and Gustav ( 1970) also reported equal sex incidence in agreement with the present study. Kanwar A.J. (1987) however has reported male predominance. All patients presented with oral lesions followed by cutaneous lesions over a span of one week to six months; which is consistent with reports of JC. Fernandez, J.B.Dharani(1970)<sup>20</sup> in which 58/69 cases 83% showed oral lesions.<sup>5</sup>

All the biopsies showed suprabasilar cleft with one biopsy in addition showed intraepidermal cleft formation. Roof of the bullas was formed by remaining intact epidermis above, while base was formed by stratum basal which remain attached to dermis, producing row of

tombstone appearance. The present study was undertaken in the Department of Pathology, Dr. V.M.Govt Medical College, Solapur during the period Nov. 2003 to Nov. 2005. Patients with vesiculobullous lesions attending the outdoor of skin department as well as those admitted were included. Clinical examination and histopathological study was done in every case. Immunofluorescence studies were not undertaken.

The vesiculobullous skin disorders constituted 25% of the all the skin biopsies received.

A total 50% cases were studied, of which 30% group, 8% were of bulous pemphigoid, 6% were of bullous impetigo and 4% were of toxic epidermal necrolysis. Amongst the vesiculobullous disorders pemphigus and its variants were the most common (30%). Majority of cases of the pemphigus group 63.33% were seen in the age group 21-60 years. Oral lesions and Nikolsky sign were seen in all the cases of pemphigus vulgaris, whereas oral lesions were seen in only one case of pemphigus foliaceus. However, Nikolsky sign was absent in both the cases of IgA pemphigus All the patients of bullous pemphigoid were above 50 years of age with male predominance (m:F 3:1). Tense bullae with history of itching was seen in majority of cases.

**Conclusion:**

This emphasizes the importance of skin biopsy in diagnosis of vesiculobullous disorders of skin.

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