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Clinicopathologic Correlation and Diagnostic Spectrum of Inflammatory Dermatoses: A Histopathologic Study of 74 Cases

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INTRODUCTION

Inflammatory dermatoses encompass a wide range of skin disorders with overlapping clinical and histopathologic features. Understanding this clinicopathological interplay is crucial for accurate diagnosis and effective management.This study aimed to categorize inflammatory dermatoses based on predominant histopathologic patterns and to evaluate the degree of clinicopathologic correlation in each category.

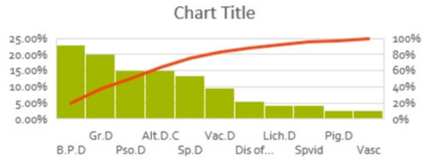
METHODS

The study was conducted in the Departments of Dermatology and Pathology at a tertiary care hospital over a period of two years. A total of 74 consecutive skin biopsy specimens showing inflammatory pathology were retrospectively reviewed and classified into major histopathologic categories: spongiotic, pigmented, psoriasiform, lichenoid, vacuolar interface, granulomatous, bullous and pustular, vasculopathy, collagen-altering, follicular, and perivascular inflammatory dermatoses. Each case was analyzed for diagnostic specificity and correlated with the corresponding clinical impression.

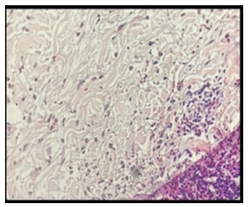
RESULTS

Among the 74 cases, bullous and pustular disorders were the most frequent pattern (23.0%), followed by granulomatous dermatitis (20.3%), psoriasiform dermatitis and collagen- altering (14.9% each), spongiotic dermatitis (13.5%), with vacuolar interface dermatitis (9.5%) , follicular (5.4%) followed by lichenoid dermatitis and superficial perivascular inflammatory patterns comprised (4.1%) of cases while vasculopathy and pigmented dermatitis were least common (2.7% each).Overall, 59 out of 74 cases (79.7%) showed clinicopathologic correlation, while 15 (20.2%) exhibited partial or poor concordance. The highest degree of correlation was observed in bullous and pustular disorders (84.6%) and granulomatous dermatitis (83.3%), whereas nonspecific spongiotic and superficial perivascular patterns showed the lowest agreement.

DISCUSSION



Category	T.C	NsP.C	C.C	%
Pig.D	2	0	2	100%
Pso.D	11	4	7	63.6%
Lich.D	3	2	1	33.3%
Vac.D	7	0	7	100%
G.D	15	2	13	86.7%
Vasc	2	0	2	100%
B.P.D	17	3	14	82.4%
Alt of DC	11	0	11	100%
Dis of HF	4	0	4	100%
Spvid	3	2	1	33.3%



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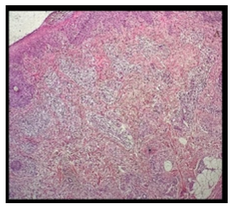

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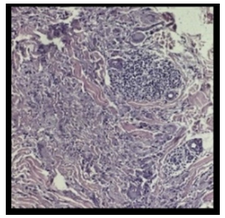

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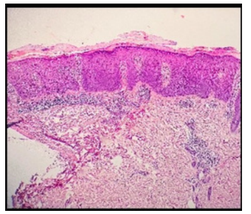

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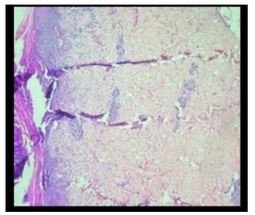
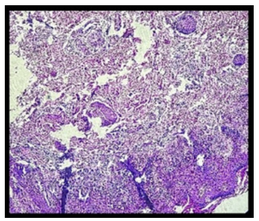


PEVA



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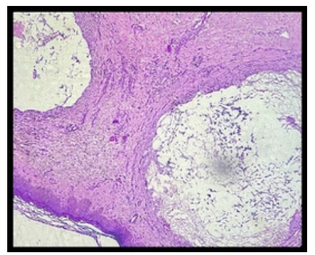

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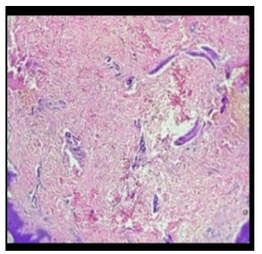
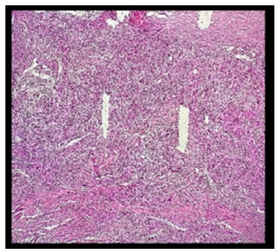


MORPHEA



LICHENOID VASCULOPATHY

CONCLUSION

Bullous and pustular disorders emerged as the predominant histopathologic pattern and demonstrated the strongest clinicopathologic correlation. Despite this, a significant proportion of cases remained nonspecific, underscoring the continued need for integrated clinical evaluation and ancillary studies to enhance diagnostic precision in inflammatory dermatoses.

REFERENCES

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2. A Clinicopathological Study of Inflammatory Dermatoses (Prasanthi Cherkuri, Vasundara Gardas, Sanjana Nutakki - 2023)