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Original Research Article

Evaluation of Histopathological Spectrum of Dermatological Lesions: An Institutional Based Study

Riddhi Upadhyay

Assistant Professor, Department of Pathology,
Index Medical College, Hospital & Research Centre, Indore, Madhya Pradesh, India.

ABSTRACT

Background: Dermatological lesions encompass a broad spectrum of conditions ranging from inflammatory and infectious disorders to benign and malignant neoplasms. Many cutaneous lesions show overlapping clinical features, making definitive diagnosis challenging on clinical grounds alone. Histopathological examination of skin biopsies remains the gold standard for accurate diagnosis, classification, and assessment of disease patterns, especially in a tertiary care setting where diverse and complex cases are encountered. Understanding the histopathological spectrum of dermatological lesions is essential for effective clinicopathological correlation and appropriate patient management.

Aim: To study the histopathological spectrum of dermatological lesions and analyze their distribution with respect to age, sex, anatomical site, and nature of lesions.

Materials and Methods: This hospital-based descriptive observational study included 105 patients who underwent skin biopsy for various dermatological lesions. Biopsy specimens received in adequate condition were processed using routine histopathological techniques. Sections were stained with hematoxylin and eosin, and special stains were applied wherever indicated. Clinical data including age, sex, lesion site, and clinical diagnosis were recorded. Lesions were categorized histopathologically into non-neoplastic and neoplastic groups, with further subclassification of non-neoplastic lesions. Statistical analysis was performed using descriptive statistics, and associations between variables were assessed using appropriate tests, with a p-value <0.05 considered statistically significant.

Results: The patients' age ranged from childhood to elderly, with a mean age of 45.2 ± 18.6 years. The most commonly affected age group was 41–60 years (33.33%). Males predominated (58.10%), with a male-to-female ratio of 1.39:1. The head and neck region was the most frequently involved site (28.57%). Non-neoplastic lesions constituted the majority (74.29%), while neoplastic lesions accounted for 25.71% of cases. Among non-neoplastic lesions, inflammatory dermatoses were the most common (35.90%), followed by infectious (25.64%) and autoimmune/vesiculobullous disorders (15.38%). A statistically significant association was observed between sex and nature of lesion, with neoplastic lesions being more common in males (p = 0.041).

Conclusion: Non-neoplastic dermatological lesions predominate in skin biopsies, with inflammatory conditions being the most frequent. Histopathological examination plays a crucial role in establishing definitive diagnosis and enhancing clinicopathological correlation, thereby guiding appropriate clinical management in dermatological practice.

Keywords: Dermatological lesions; Skin biopsy; Histopathology; Non-neoplastic lesions; Neoplastic lesions.

***Correspondence to:**

Dr. Riddhi Upadhyay,
Assistant Professor,
Department of Pathology,
Index Medical College, Hospital & Research Centre,
Indore, Madhya Pradesh, India.
Email: dr.riddhi84@gmail.com

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INTRODUCTION

The skin is the largest and one of the most complex organs of the human body, functioning as a barrier against environmental insults while also reflecting a wide range of internal and systemic disturbances. Because it contains multiple compartments—epidermis, dermis, adnexal structures, vessels, nerves, and subcutis—cutaneous disease can arise from inflammatory, infectious, immune- mediated, pigmentary, vascular, metabolic, and neoplastic processes. Clinically, many dermatological lesions share overlapping morphologic patterns such as papules, plaques, nodules, ulcers, and vesiculobullous eruptions, and the same disorder may appear different depending on stage, site, treatment history, or secondary changes like excoriation and infection. This overlap often limits the certainty of diagnosis based on clinical inspection alone, particularly in atypical presentations, partially

treated lesions, and disorders with similar visual patterns. Skin biopsy with histopathological examination remains the most definitive and widely available investigative method to establish the nature of a dermatological lesion, to classify disease patterns, and to guide therapy. A biopsy can differentiate inflammatory dermatoses from infections, confirm immune-mediated disorders, and detect early neoplastic transformation when clinical suspicion is high or when lesions fail to respond to empirical treatment. Histopathology also helps in identifying prognostically important features in tumors and in excluding mimickers, which is crucial in tertiary care settings where complicated, recurrent, or referred cases are frequently encountered. The diagnostic yield of biopsy depends on multiple variables including the selection of the representative site, the type of biopsy performed, the depth and adequacy of tissue, proper fixation, and the completeness of clinical details communicated to the pathologist.[1] From a dermatopathology perspective, non-neoplastic dermatoses are often approached through "pattern-based" analysis, in which epidermal and dermal reaction patterns are systematically evaluated. Common patterns include spongiotic dermatitis, psoriasiform dermatitis, lichenoid/interface dermatitis, vesiculobullous patterns, granulomatous inflammation, vasculopathic/vasculitic changes, and panniculitis. Recognizing these patterns allows the pathologist to narrow the differential diagnosis and, when combined with clinicodemographic data and lesion morphology, to reach a specific diagnosis. This structured approach is particularly valuable because many inflammatory disorders show subtle differences rather than pathognomonic findings, and some entities require careful correlation with distribution, symptom profile, and clinical evolution.[2] Accurate interpretation further requires awareness of procedural and pre-analytical factors that can introduce diagnostic pitfalls. Superficial biopsies may miss the diagnostic zone in deeper dermatoses; crushed tissue can obscure interface changes; and improper orientation may limit evaluation of adnexal involvement or margin status in excisions. In addition, prior topical corticosteroids or partial antimicrobial therapy may modify histologic features, leading to non-specific patterns unless clinical context is provided. The need to optimize each step—from biopsy planning to slide interpretation—has been emphasized in dermatopathology literature because errors can occur at any point along the "biopsy pathway," and the final diagnosis is strongest when clinical suspicion and microscopic findings reinforce each other.[3] Neoplastic lesions of the skin form another major component of dermatological biopsies, ranging from benign proliferations to aggressive malignancies. While many tumors are clinically suspected, histopathology is essential for confirmation, typing, and assessing biological behavior. Excision biopsies, in particular, require standardized handling and careful evaluation of surgical margins, especially in lesions where complete removal and margin clearance influence recurrence risk and subsequent management. Margin assessment is also relevant in pigmented lesions and keratinocytic tumors where clinical borders may not match histologic spread. Consistent grossing practices and clear reporting of margin involvement are therefore important quality elements in a tertiary care pathology service.[4] Within the broader tumor spectrum, adnexal tumors present a distinctive diagnostic challenge because they are relatively uncommon, show diverse differentiation (follicular, sebaceous, eccrine, or apocrine), and may mimic each other clinically as well as histologically. Many adnexal tumors are benign but some malignant counterparts exist, and distinction relies largely on architectural patterns, cytologic atypia, infiltrative growth, and supportive clinicopathological clues. Because adnexal tumors often occur on cosmetically sensitive areas and may be longstanding, tertiary centers frequently receive such cases for definitive diagnosis and classification. Histopathological categorization of adnexal tumors not only confirms the lesion but also aids clinicians in selecting appropriate excision strategies and surveillance.[5] The diversity is shaped by referral patterns, availability of specialist dermatology services, and the threshold for biopsy in different clinical units. Importantly, the completeness of clinical information on requisition forms directly affects diagnostic accuracy and the ability to provide meaningful clinicopathological correlation, especially in inflammatory disorders where histology must be interpreted in context. Audits of biopsy practice have highlighted that improving clinical documentation and correlating discordant cases can strengthen reporting quality and patient care.[6]

MATERIALS AND METHODS

This was a hospital-based, descriptive observational study conducted at Department of Pathology, Index Medical College, Hospital & Research Centre, Indore, Madhya Pradesh, India. The study focused on the histopathological evaluation of dermatological lesions submitted for biopsy, with clinicopathological correlation wherever clinical details were available. A total of 105 patients presenting with cutaneous and/or adnexal lesions and undergoing skin biopsy were included for analysis. The study comprised 105 consecutive cases of dermatological lesions received as skin biopsies in the histopathology section. Each case represented an individual patient; repeat biopsies from the same patient for the same lesion were not included. The sample included both outpatient and inpatient referrals from Dermatology and allied departments. All specimens were processed and reported using standard histopathological procedures, and the final diagnosis was based primarily on microscopic findings supported by relevant clinical information.

Inclusion and Exclusion Criteria

All patients of any age and sex with dermatological lesions for which a skin biopsy was performed and the specimen was received in adequate condition for histopathological processing were included. Cases were excluded when the biopsy was inadequate (too superficial, scanty tissue, or crushed), when key diagnostic areas were missing due to improper sampling, when the tissue showed extensive autolysis or poor fixation, or when the clinical details were unavailable to an extent that meaningful clinicopathological interpretation was not possible. Lesions arising from mucosal sites and non-cutaneous soft tissue masses without epidermal/dermal representation were also excluded.

Methodology

A structured proforma was used to record patient demographics and lesion-related parameters obtained from the requisition forms and clinical notes. Demographic variables included age and sex. Lesion-related variables included anatomical site (head–neck, trunk, upper limb, lower limb, genital/perineal region, or multiple sites), number of lesions (single/multiple), duration of symptoms as mentioned in the requisition (recorded for clinical correlation

only), clinical morphology (macule, papule, plaque, nodule, vesicle/bulla, ulcer, tumor, cystic swelling), pattern of distribution (localized/generalized), and the clinical differential diagnosis provided by the clinician. Relevant history such as pruritus, pain, photosensitivity, history of trauma, drug intake, comorbidities (e.g., diabetes, autoimmune disorders), immunosuppression, and prior treatment (topical/systemic steroids, antibiotics, antifungals) was documented when available. The biopsy type (punch/excision/incision/shave) and adequacy of sampling were also recorded.

Specimen Handling and Histopathological Processing

All biopsy specimens were received in 10% neutral buffered formalin with appropriate labelling and clinical details. Gross examination was performed noting specimen type, dimensions, color, consistency, and any visible surface changes; for excision specimens, margins were inked where applicable and serial sectioning was done to ensure representative sampling. Tissue processing was carried out by routine paraffin embedding, and 3–5 µm thick sections were cut and stained with Hematoxylin and Eosin (H&E) for primary evaluation. Additional deeper sections were taken in cases with diagnostic uncertainty, superficial biopsies, or when granulomatous and vesiculobullous disorders were suspected.

Special Stains and Ancillary Techniques

Special stains were employed when indicated to support the diagnosis and to identify infectious agents or dermal deposits. These included Periodic acid–Schiff (PAS) for fungal elements and basement membrane changes, Ziehl–Neelsen/Fite-Faraco stains for mycobacteria depending on the clinical and microscopic suspicion, and Giemsa for mast cells or selected inflammatory patterns as required. Where vascular lesions, mucin deposition, amyloid, or collagen alteration were suspected, appropriate histochemical stains were used as per standard laboratory protocol. Ancillary tests were applied selectively based on histomorphology and the clinical differential diagnosis, and the final interpretation integrated both microscopic and clinical data.

Histopathological Evaluation and Diagnostic Categorization

All slides were examined under light microscopy and evaluated systematically for epidermal, dermal, and adnexal changes. Epidermal parameters assessed included hyperkeratosis/parakeratosis, acanthosis, spongiosis, basal cell vacuolar alteration, ulceration, acantholysis, dysplasia, and pattern of interface change. Dermal parameters included the type and distribution of inflammatory infiltrate (perivascular, periappendageal, lichenoid, diffuse, nodular), presence of granulomas (tuberculoid, suppurative, palisading), dermal edema, fibrosis, vasculitis, pigment incontinence, and presence of organisms or deposits. Adnexal and subcutaneous involvement, neural involvement where appreciable, and tumor architecture/cytology in neoplastic lesions were documented. Based on the final histopathological diagnosis, lesions were categorized broadly into non-neoplastic and neoplastic groups. Non-neoplastic lesions were further classified into inflammatory, infectious, autoimmune/vesiculobullous, pigmentary, vascular/reactive, and cystic/hamartomatous patterns as appropriate. Neoplastic lesions were grouped into benign and malignant tumors, with further classification by line of differentiation (keratinocytic, melanocytic, adnexal, soft tissue/vascular) according to accepted histopathological criteria.

Clinicopathological Correlation and Quality Control

Clinicopathological correlation was performed by comparing the histopathological diagnosis with the clinical diagnosis/differential diagnosis mentioned on the requisition forms and clinical records. Discordant cases were reviewed with repeat slide examination and, where necessary, additional sections and special stains were performed to refine the diagnosis. Standard internal quality control measures were followed throughout tissue processing and staining, including verification of fixation adequacy, processing schedules, microtomy quality, and stain performance. Reports were finalized only after ensuring slide adequacy and diagnostic confidence.

Statistical Analysis

Data were entered in a structured format and analyzed using standard statistical methods. Categorical variables such as lesion category, site distribution, and diagnostic groups were summarized as frequencies and percentages. Continuous variables such as age were summarized using mean and standard deviation or median and range where appropriate. Associations between key clinicodemographic variables (e.g., age group, sex, anatomical site) and major diagnostic categories (non-neoplastic vs neoplastic; benign vs malignant) were evaluated using suitable tests of significance such as the chi-square test or Fisher's exact test, with a p-value of <0.05 considered statistically significant.

RESULTS

The age of the patients ranged from childhood to elderly, with a mean age of 45.2 ± 18.6 years, indicating a predominance of lesions in the middle-aged and older population. The highest number of cases was observed in the 41–60 years age group, accounting for 35 cases (33.33%), followed by the 21–40 years age group with 32 cases (30.48%). Patients aged more than 60 years constituted 28 cases (26.67%), while the least number of cases were seen in patients aged ≤20 years (10 cases, 9.52%). There was a clear male predominance, with 61 males (58.10%) and 44 females (41.90%), resulting in a male to female ratio of 1.39:1. (Table 1)

Analysis of the anatomical distribution of lesions revealed that the head and neck region was the most commonly affected site, accounting for 30 cases (28.57%). This was followed by involvement of the trunk in 25 cases (23.81%) and the lower limbs in 22 cases (20.95%). Lesions involving the upper limbs constituted 18 cases (17.14%). Less frequently involved sites included the genital and perineal region, seen in 6 cases (5.71%), while multiple site involvement was observed in 4 cases (3.81%). (Table 2)

Based on histopathological evaluation, the lesions were broadly categorized into non-neoplastic and neoplastic groups. Non-neoplastic lesions formed the majority, with 78 cases (74.29%), while neoplastic lesions accounted for 27 cases (25.71%). This indicates that inflammatory, infectious, and reactive conditions constituted the bulk of dermatological biopsies in the study population, reflecting the wide spectrum of non-neoplastic skin disorders encountered in routine clinical practice at a tertiary care center. (Table 3)

Among the 78 non-neoplastic lesions, inflammatory dermatoses were the most common, comprising 28 cases (35.90%). These included conditions characterized by epidermal and dermal inflammatory changes such as spongiotic, lichenoid, and

psoriasiform patterns. Infectious lesions constituted the second largest group with 20 cases (25.64%), highlighting the continued burden of cutaneous infections. Autoimmune and vesiculobullous disorders accounted for 12 cases (15.38%), reflecting the importance of histopathology in confirming these clinically challenging entities. Pigmentary disorders were seen in 8 cases (10.26%), while vascular and reactive lesions comprised 6 cases (7.69%). (Table 4)

The association between sex and the nature of dermatological lesions was analyzed. Among males, 42 cases (40.00%) were non-neoplastic and 19 cases (18.10%) were neoplastic. In females, 36 cases (34.29%) were non-neoplastic and 8 cases (7.61%) were neoplastic. Statistical analysis revealed a significant association between sex and lesion category with a p-value of 0.041, indicating that neoplastic lesions were significantly more common in males compared to females. (Table 5)

Table 1: Age and Sex Distribution of Patients (n = 105)

Age group (years)	Male n (%)	Female n (%)	Total n (%)
≤20	6 (5.71)	4 (3.81)	10 (9.52)
21–40	18 (17.14)	14 (13.33)	32 (30.48)
41–60	20 (19.05)	15 (14.29)	35 (33.33)
>60	17 (16.19)	11 (10.48)	28 (26.67)
Total	**61 (58.10)**	**44 (41.90)**	**105 (100.00)**

Mean age of patients: 45.2 ± 18.6 years; Male to female ratio: 1.39 : 1

Table 2: Anatomical Site Distribution of Dermatological Lesions

Anatomical site	Number of cases (n)	Percentage (%)
Head and neck	30	28.57
Trunk	25	23.81
Upper limb	18	17.14
Lower limb	22	20.95
Genital/perineal area	6	5.71
Multiple sites	4	3.81
Total	**105**	**100.00**

Table 3: Histopathological Spectrum of Dermatological Lesions

Category of lesion	Number of cases (n)	Percentage (%)
Non-neoplastic lesions	78	74.29
Neoplastic lesions	27	25.71
Total	**105**	**100.00**

Table 4: Subclassification of Non-Neoplastic Lesions (n = 78)

Type of non-neoplastic lesion	Number of cases (n)	Percentage (%)
Inflammatory	28	35.90
Infectious	20	25.64
Autoimmune / vesiculobullous	12	15.38
Pigmentary disorders	8	10.26
Vascular / reactive lesions	6	7.69
Cystic / hamartomatous	4	5.13
Total	**78**	**100.00**

Table 5: Association Between Sex and Nature of Lesions

Sex	Non-neoplastic n (%)	Neoplastic n (%)	Total	p-value
Male	42 (40.00)	19 (18.10)	61	
Female	36 (34.29)	8 (7.61)	44	**0.041**
Total	**78**	**27**	**105**	

DISCUSSION

In the present study (n=105), patients were predominantly middle-aged with a mean age of 45.2 ± 18.6 years, and the peak frequency was in 41–60 years (33.33%), with male predominance (58.10%; M:F = 1.39:1). This demographic pattern broadly supports the utility of biopsy in adult dermatology practice, although our cohort was younger and more male-skewed than the large biopsy series by Korfitis et al (2014), where the mean age was 54.58 years and females slightly predominated (51.8%); importantly, they also documented head–neck as the commonest biopsy region (38.3%), aligning with our finding that head–neck was the leading site (28.57%), suggesting that cosmetically/clinically conspicuous and sun-exposed areas contribute substantially to biopsy load.[7]

The age-group peak in our study (41–60 years: 33.33%) contrasts with cohorts enriched for non-neoplastic inflammatory disorders, where younger adults form a larger share. For example, Veldurthy et al (2015) (non-neoplastic lesions; n=92) reported the 21–30 year group as the largest (31.5%), indicating that when neoplasms are excluded and punch biopsies predominate, the case-mix shifts toward earlier-onset inflammatory/papulosquamous and infective conditions; in our series, inclusion of neoplastic lesions (25.71%) likely contributed to the older age clustering.[8]

Our sex-linked pattern also extended to lesion nature: neoplastic lesions were proportionally higher in males (19/61; 18.10% of total) than females (8/44; 7.61% of total), with a significant association (p = 0.041). Some hospital datasets show much higher neoplastic representation overall depending on referral profile; Gaikwad et al (2016) reported neoplastic lesions 58% and non-neoplastic 42%, along with a stronger male predominance (M:F = 2.1:1) and a comparable mean age (44.1 years), highlighting how institutional case selection (dermatology-dominant vs combined dermatology–surgery–oncology inflow) can materially shift the non-neoplastic/neoplastic split compared with our 74.29% vs 25.71% distribution.[9]

When our overall spectrum is compared with another mixed-lesion audit, the balance in our study still appears weighted toward non-neoplastic dermatoses. Mehar et al (2014) reported inflammatory lesions (40.2%) and granulomatous lesions (26.8%) as major contributors, while benign (15.2%) and malignant (3.6%) tumors together accounted for a smaller fraction than in our cohort (neoplastic 25.71%). This relative increase in our neoplastic share may reflect greater biopsy thresholds for tumors, older age representation (26.67% >60 years), and possibly more excisions being routed to histopathology in a tertiary setup.[10]

Within non-neoplastic lesions, our leading group was inflammatory dermatoses (35.90%), followed by infectious (25.64%) and autoimmune/vesiculobullous (15.38%), whereas Goyal et al (2015) (non-neoplastic clinicopathological correlation; n=209) observed infectious dermatoses as the dominant category (53.6%), with lower proportions of non-infectious inflammatory (20.6%) and higher pigmentary disorders (18.2%) than ours (10.26%). These differences suggest geographic variation in infection burden and differing biopsy practices—centers with high suspicion for infectious etiologies may biopsy earlier or more often, inflating the infectious fraction relative to inflammatory reaction patterns.[11]

Our infectious lesions constituted 20/105 (19.05%) of all biopsies (and 25.64% of non-neoplastic lesions). Granulomatous and chronic infectious dermatoses are known to contribute a sizable share of skin biopsy material in endemic regions; in eastern India, Chakrabarti et al (2016) found granulomatous lesions in 14.53% of all skin biopsies (186/1280), with leprosy as the leading etiology (57.52%) among granulomatous cases. The magnitude is comparable at the "biopsy-workload" level (their granulomatous fraction vs our overall infectious load), underscoring that infections—particularly granulomatous infections—remain a major driver of diagnostic histopathology in tertiary services.[12]

Although our results did not sub-type granulomas separately in the tables, the need for careful classification is well supported by prior clinicopathologic work. Mohan et al (2006), analyzing granulomatous dermatitis, demonstrated that only 12.11% of granulomatous dermatitis cases were non-infectious, with the remainder being infectious/other causes; within the non-infectious subset, sarcoidosis (21.1%) and granuloma annulare (15.4%) were key entities. This reinforces that, in series like ours where "infectious" and "reactive/vascular" buckets exist, targeted ancillary stains and clinicopathological correlation are essential to avoid misclassification of granulomatous patterns that can mimic each other histologically.[13]

Autoimmune/vesiculobullous disorders formed a meaningful component in our non-neoplastic group (15.38%), reflecting the diagnostic dependence on histopathology for blistering diseases. Studies enriched for vesiculobullous lesions naturally show higher proportions: Sabir et al (2010) evaluated 85 patients and found vesiculobullous lesions as the most common non-neoplastic group (41/85 = 48.24%), with neoplastic lesions being the next major category (24/85 = 28.24%). The contrast with our 15.38% vesiculobullous share is expected given their special focus, but it supports the broader point that vesiculobullous pathology contributes substantially when actively sampled and clinically prioritized.[14] Overall, the demographic and diagnostic patterns in our cohort (male predominance 58.10%, predominance of non-neoplastic lesions 74.29%, and a significant association of male sex with neoplastic lesions, p = 0.041) are broadly comparable to other histopathology-based audits that also report male preponderance in skin biopsy material. Singh et al (2016) documented male predominance of 60.82% in their series, which closely parallels our findings, supporting that sex-linked differences in exposure and healthcare-seeking may influence biopsy patterns across settings.[15]

CONCLUSION

This study highlights the wide histopathological spectrum of dermatological lesions encountered in a tertiary care hospital, with non-neoplastic lesions forming the majority and inflammatory dermatoses being the most common category. Middle-aged males were predominantly affected, and the head and neck region was the most frequently involved anatomical site. Histopathological examination proved essential for accurate diagnosis, classification, and clinicopathological correlation, particularly in clinically overlapping lesions. The findings underscore the continued importance of skin biopsy as a reliable diagnostic tool in routine dermatological practice.

REFERENCES

1. Aslan C, Göktay F, Mansur AT, Aydıngöz IE, Güneş P, Ekmekçi TR. Clinicopathological consistency in skin disorders: a

retrospective study of 3949 pathological reports. J Am Acad Dermatol. 2012;66(3):393-400.
2. Llamas-Velasco M, Paredes BE. Basic concepts in skin biopsy. Part I. Actas Dermosifiliogr. 2012;103(1):12-20.
3. Sleiman R, Kurban M, Abbas O. Maximizing diagnostic outcomes of skin biopsy specimens. Int J Dermatol. 2013;52(1):72-78.
4. Ranjan R, Singh L, Arava SK, Singh MK. Margins in skin excision biopsies: principles and guidelines. Indian J Dermatol. 2014;59(6):567-570.
5. Sharma A, Paricharak DG, Nigam JS, Rewri S, Soni PB, Omhare A, et al. Histopathological study of skin adnexal tumours: institutional study in South India. J Skin Cancer. 2014;2014:543756.
6. Balasubramanian P, Chandrashekar L, Thappa DM, Jaisankar TJ, Malathi M, Ganesh RN, et al. A retrospective audit of skin biopsies done in a tertiary care center in India. Int J Dermatol. 2015;54(8):939-943.
7. Korfitis C, Gregoriou S, Antoniou C, Katsambas A, Rigopoulos D. Skin biopsy in the context of dermatological diagnosis: a retrospective cohort study. Dermatol Res Pract. 2014;2014:734906.
8. Veldurthy VS, Shanmugam C, Sudhir N, Sirisha O, Motupalli CP, Rao N, et al. Pathological study of non-neoplastic skin lesions by punch biopsy. Int J Res Med Sci. 2015;3(8):1985-1988.
9. Gaikwad SL, Kale MS, Kamal M. Histopathological spectrum of skin lesions in a rural based hospital. Int J Curr Res. 2016;8(3):27429-27432.
10. Mehar R, Jain R, Kulkarni CV, Narang S, Mittal M, Patidar H, et al. Histopathological study of dermatological lesions: a retrospective approach. Int J Med Sci Public Health. 2014;3(9):1082-1085.
11. Goyal N, Shah N, Shah FR, Shah NR, Shah CK, Shah JM, et al. Spectrum of non-neoplastic skin diseases: a histopathology based clinicopathological correlation study. Sch J App Med Sci. 2015;3(1F):444-449.
12. Chakrabarti S, Pal S, Biswas BK, Bose K, Pal S, Pathak S, et al. Clinico-pathological study of cutaneous granulomatous lesions—A 5-year experience in a tertiary care hospital in India. Iran J Pathol. 2016;11(1):54-60.
13. Mohan H, Bal A, Dhami GP, et al. Non-infectious granulomatous dermatitis: a clinicopathological study. J Cutan Pathol. 2006;33(12):767-771.
14. Sabir F, Aziz M, Afroz N, Amin SS, et al. Clinical and cyto-histopathological evaluation of skin lesions with special reference to bullous lesions. Indian J Pathol Microbiol. 2010;53(1):41-46.
15. Singh S, Debnath A, Datta A, Chakravarty N, Chaubey RN, et al. Histopathological evaluation of skin lesions with special reference to skin adnexal tumours. IOSR J Dent Med Sci. 2016;15(2):34-39.

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