



HISTOPATHOLOGICAL STUDY OF OF SKIN LESIONS IN A TERTIARY CARE HOSPITAL IN NORTH TELANGANA

Pathology

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ABSTRACT

Introduction: The skin is the largest organ of the body, accounting for about 15% of the total body weight in adult humans. It exerts multiple vital protective functions against environmental aggressions. The fine structure of skin shows considerable regional variations, concerning its thickness (varying from 1 to 4 mm), distribution of epidermal appendages and density of melanocytes etc.

Materials & Methods: The present study is a retrospective and prospective study conducted in Department of Pathology for a period of one year. Detailed clinical history, all other related investigations were considered. Patients' history such as age, sex and other relevant clinical details such as site of lesion & character were noted/ provided by dermatologist. All tissue specimens were subjected to gross examination & all dimensions were taken from archives.

Results: During the period of one year, total of 90 cases were studied. Among them inflammatory lesions were most common considering upto 40 cases, followed by Infectious 20 cases, non- neoplastic 17 cases and neoplastic 13 cases. Males are more commonly affected than females in our study. Age group between 31-40 years were most commonly affected.

Conclusion: Histopathological diagnosis of each and every skin lesion should be considered, because even minute swellings which can be considered as inflammatory or infectious may turn into neoplastic. So careful histopathological examination in association with dermatological findings and clinical details should be considered.

KEYWORDS

Skin biopsy, inflammatory, Hansen's

INTRODUCTION

Skin conditions are among the most common health problems in India. Skin biopsy is most common diagnostic technique for diagnosing skin disease. The interpretation of a skin biopsy requires clinicopathological correlation. Accurate diagnosis of skin disorders is of utmost importance as treatment is varied for different skin disorders presenting with the similar clinical lesions. Thus biopsy becomes inevitable in various skin disorders to confirm diagnosis and initiate treatment. The skin or integument is a complex organ with many functions and with three main anatomic components: epidermis and skin adnexa, melanocytic system, and dermis and subcutis^{1,2}. It is the largest organ in the body—in which precisely regulated cellular and molecular interactions govern many crucial responses to our environment.

Skin conditions are very common. There are literally thousands of specific skin diseases. Imbalances in factors affecting the delicate homeostasis that exists among skin cells may result in conditions as diverse as wrinkles and hair loss, blisters and rashes, and life threatening cancers and disorders of immune regulation. Nonneoplastic or inflammatory skin diseases encompass a wide array of pathologic processes ranging from autoimmune to infectious to diseases of unknown etiology.

MATERIALS & METHODS

The present study is a retrospective and prospective study done in department of Pathology for a period of one year. All the clinical details, dermatological findings were considered for the present study. Skin biopsies were received from Dermatology department and was fixed in formalin solution. Sections were given and submitted for histopathological examination. Differential diagnosis were considered and final diagnosis was made. Majority of the cases were clinically correlated.

RESULTS

Out of the total 90 cases in our study, inflammatory lesions constituted highest number of cases followed by inflammatory lesions [Table 1]. Among the inflammatory lesions, epidermoid cyst constituted highest number of cases, Hansen's disease was the commonest among infectious lesions, Nevus was the commonest among non neoplastic lesions and Squamous cell carcinoma was the most common neoplastic lesion. Age group between 31-40 years contributed highest number of cases.

Table 1: Showing various skin lesions in our study.

Category	Number of cases	Percentage
Inflammatory	40	44.45
Infectious	20	22.22
Non neoplastic	17	18.89
Neoplastic	13	14.44

Table 2: showing various neoplastic lesions

Benign	Malignant
Hidradenoma papilliferum	Squamous cell carcinoma
Syringoma	Basal cell carcinoma
Eccrine poroma	

DISCUSSION

Skin diseases are common throughout the world including rural and urban areas. Various lesions afflicting the skin range from non-specific dermatoses and inflammatory diseases to neoplastic changes of various components of the skin. The neoplasms include a wide variety of benign and malignant neoplasms of skin.

Dermatologic disorders are common in all countries but the spectrum varies greatly. While skin diseases are very common in many developing countries, they have not been regarded as a significant problem, which could benefit from public health measures.³ This attitude is due to the assumption that skin diseases are a benign, not life-threatening minor nuisance, and that they do not merit measures, which may appear out of proportion to their low priority.³

With growing awareness & improvement in medical facilities, spectrum of diseases has been highly variable. Clinical diagnosis of different entities is often difficult, as most of the appendageal tumors present as asymptomatic papules or nodules. Anatomical location, number and distribution of lesions provide important clue but histopathology is invaluable in confirmation of the diagnosis.⁴

Not all the skin lesions require skin biopsy but some of them require it for proper diagnosis & identification of etiological agent. However, skin problems are generally among the most common diseases seen in primary care settings in tropical areas, and in some regions where transmissible diseases are endemic, they become the dominant presentation.

In our study, leprosy was seen more in males than females (ratio of 1:0.56) – the same was seen in study by Moorthy et al.

Epithelial cysts are divided into several histologic types according to the structural components of their walls. The epidermal inclusion cyst has a wall nearly identical to the epidermis and is filled with laminated strands of keratin. Squamous cell carcinoma is the second most common tumour arising on sun exposed sites in older people, exceeded only by basal cell carcinoma. Except for lesions on the lower legs, these tumours have a higher incidence in men than in women. Exposure to sunlight is the major, predisposing factor, others include industrial carcinogens, chronic ulcers and draining osteomyelitis, old burn scars, ionising radiation and in the oral cavity tobacco and betel

nut chewing. The most commonly accepted exogenous cause of squamous cell carcinoma is exposure to UV light with subsequent DNA damage.⁵

Basal cell carcinomas are common, slow growing tumours that rarely metastasize. They have a tendency to occur at sites subject to chronic sun exposure and in lightly pigmented people.

CONCLUSION

Skin biopsy is an effective and specific test to diagnose skin disorders where, in few cases special stains play a definite role (infectious diseases). In the present study, leprosy is still most common disease.

Though in the past decade, the incidence and prevalence of disease has drastically reduced, yet it is still prevalent especially in rural areas and poorer sections of our society thereby emphasizing the need for stronger measures for control of disease. It is important to correlate clinical presentation of the patient, with biopsy report, special stains and ancillary studies to help arrive at a final diagnosis especially for skin lesions.

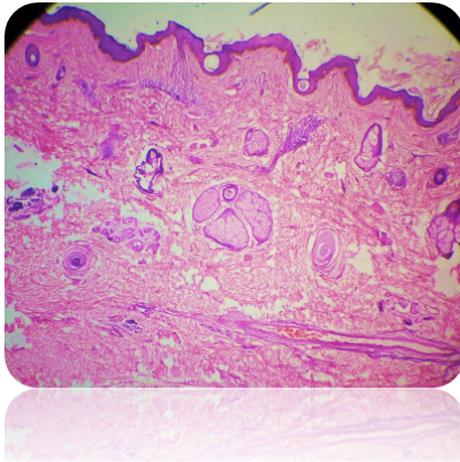


Figure 1: Section showing lining epithelium with underlying skin adnexal structures in the dermis – Dermoid cyst [H&E, x40].

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