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Histopathological spectrum of Benign Melanocytic Nevi and Melanoma in a tertiary care centre

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Abstract

Background: Melanocytic nevi are primarily important because of their histogenic relation to cutaneous melanoma. Histological assessment of these lesions constitutes a substantial proportion of a dermatopathologist's workload. This retrospective study analyses the histopathological variants of nevi and melanoma received over a two-year period.
Materials and Methods: It is a retrospective study conducted in the department of Pathology, MGM MEDICAL COLLEGE INDORE About 38 cases of diagnosed from period between 2022-2024 were reviewed retrospectively.
Results: 38 cases were included in the study, Female predominance was seen (M: F - 2:3) and commonest age range was 21-30 years. Histologically the most frequent lesion was intradermal nevus.
Conclusion: According to our study, benign lesions outnumbered the malignant lesions. Since these benign lesions may transform into malignant it is mandatory to excise a pigmented lesion and get it biopsied for histopathological confirmation.

Key words: Intradermal nevus, Junctional Nevus, Compound Nevus, Melanoma.

INTRODUCTION

- Melanocytic lesions show great diversity in their architecture and cytomorphological appearance of their composite cells.(1)
- They are the most common melanocytic tumors with very higher frequency of occurrence of benign ones.
- Only a small proportion progresses to Melanoma but Early detection of melanoma drives excision of melanocytic nevi, as at least 30% of melanomas arise from pre-existing, benign nevi.(2)
- In this study, the histopathological spectrum of the adult as well as pediatric nevi and Melanocytic lesions received in our department over the last two years is being revisited with the aim to analyze the various histopathological variants, and to look for any unusual histopathological features in these lesions.

AIMS AND OBJECTIVE:

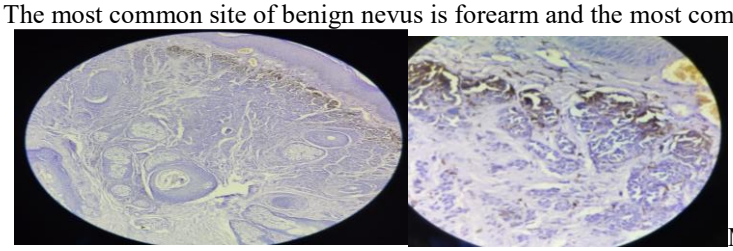
To observe histopathological spectrum and types of benign Melanocytic nevus and Melanoma.

MATERIAL AND METHOD

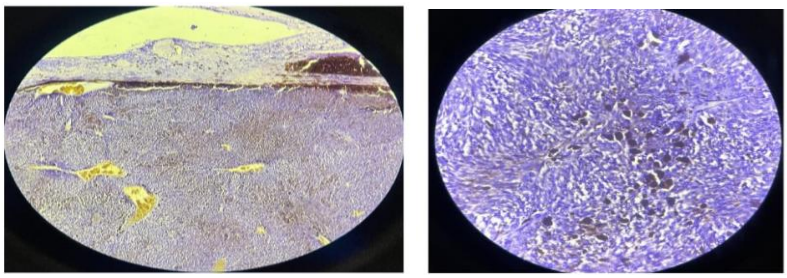
- This is a retrospective descriptive study conducted in Department of Pathology, Mahatma Gandhi Medical College & M.Y Hospital, Indore during period of January 2022- December 2024.
- The demographic details along with clinical features were retrieved from the archives.
- Biopsies received from Department of dermatology were included in the study.
- The categorisation of various nevus were done as per their histological features and also according to the site of lesion.

OBSERVATION AND RESULTS

- During the period of 2022-2024, total 38 cases of melanocytic lesions are reported in Pathology department,Mahatma Gandhi Medical college & M.Y Hospital,Indore during period of 2022-2024.
- The study consist of 38 cases out of which 13 are males and 25 are females.
- It was noted that most common type of nevus is intradermal nevus in adults.
- The most common site of benign nevus is forearm and the most common site of melanoma is foot.



Microscopy of **Intradermal nevu**



Microscopy of **Malignant Melanoma**

Table 1 Patient characteristics: Age and sex

AGE DISTRIBUTION(Years)	NO. OF CASES(N=38)	PERCENTAGE(%)
00-10 Years	01	2.6%
11-20 Years	09	23.6%
21-30 Years	15	39.4%
31-40 Years	04	10.6%
41-50 Years	04	10.6%
51-60 Years	02	5.4%
Above 60 Years	03	7.8%
TOTAL	38	100%
SEX		
MALE	13	34.3%
FEMALE	25	65.7%

Table 2: Histological subtypes of nevus

HISTOPATHOLOGY	NO. OF CASES(N=38)	PERCENTAGE(%)
INTRADERMAL NEVUS	18	47.4%
JUNCTIONAL NEVUS	10	26.4%
COMPOUND NEVUS	04	10.5%

SPITZ NEVUS	01	2.6%
MALIGNANT MELANOMA	05	13.1%
TOTAL	38	100%

Table 3: Shows the site of biopsy of benign nevi

SITE	**NUMBER OF CASES(N=33)**	**PERCENTAGE**
FOREARM	13	39.3%
LOWER EYELID	10	30.3%
PREAURICULAR AREA, CHEEK	5	15.1%
NOSE,NECK	4	12.1%
SACRAL REGION	1	3.2%
TOTAL	33	100%
DIFFERENT SITES OF MELANOMA		
FOOT	3	60%
CHOROID EYE	1	20%
NECK	1	20%

RESULTS

- 38 cases were included in the study, of these 86.8% were benign while 13.2% were malignant.
- Female predominance was seen (n=25) and commonest age range was 21-30 years (n=19).
- Histologically the most frequentt type of benign nevus is intradermal nevus followed by junctional nevus.
- The most common site of benign nevus is Forearm and the most common site of melanoma is Foot.

DISCUSSION

A total of 38 cases were seen of which benign melanocytic lesion were seen in 33 cases and malignant melanoma seen in 05 cases, studied with an age range from 10 to 70 years and a mean age of 34 years. Non malignant lesion most commonly seen was intradermal nevus. And most common site being forearm. Our studies were similar to Azam et al (3) which showed following findings-

STUDY	**AGE GROUP**	**M:F**	**Commonest type of nevi**	**Commonest site of nevi**
Azam et al.	21-30 Year	1:1.8(Female Predominance)	Intradermal	Forearm
PRESENT STUDY	21-30 Year	1:1.7(Female predominance)	Intradermal	Forearm

For malignant lesions most common age group was above 60 yrs of age our findings matched with Mukhopadhyay et al (4). which showed following findings-

STUDY	**AGE GROUP**	**M:F**	**Percentage of Malignant Melanoma**	**Commonest site of melanoma**
Mukhopadhyay	61-70 Year	1:1(No	36.3%	Head and neck

et al.		Predominance)		
PRESENT STUDY	Above 60 Year	1:1.7(Female predominance)	13.2%	Foot

CONCLUSION

- The study showed that benign Melanocytic lesions outnumbered the malignant ones.
- Since, there is a potential risk of conversion of benign ones into malignant one, it is mandatory to excise these pigmented lesions and get their biopsied done for histopathological confirmation.
- Successful diagnosis and management rely on strong coordination between dermatologists and pathologists.

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