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Original Research Article

Clinical and histopathological profile of benign appendageal tumours of skin: a descriptive study from Andhra Pradesh

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ABSTRACT

Background: Skin adnexal tumors are those neoplasms that arise from pilosebaceous units, eccrine sweat glands or apocrine sweat glands. Vast majority of appendageal tumors are benign and most of the benign skin adnexal tumors are asymptomatic papules or nodules and often difficult to diagnose clinically. The objective of the study was to study the clinical and histological features suggestive of benign skin appendageal tumors.
Methods: This is a descriptive observational study conducted among 50 patients presenting with clinical features suggestive of benign skin appendageal tumors attending at outpatient department of DVL, Kurnool medical college/ GGH, Kurnool between January 2016 to June 2017.
Results: The highest age incidence was in the age group of 21-30 years- 24 cases (48%). The commonest tumors in this study were eccrine gland tumors i.e 43 cases (86%). Syringomas were the commonest tumors (38 cases, 76%). Commonest presenting lesion was papule (82%). Commonest site is face (94%).
Conclusions: The commonest tumors recorded were eccrine gland tumors (86%). Syringomas constitute the largest group (76%) followed by trichoepitheliomas (6%). The highest age incidences was in 3rd decade (48%), followed by 4th decade (42%).

Keywords: Skin appendageal, Clinical profile, Histopathological findings

INTRODUCTION

Skin adnexal tumors are those neoplasms that arise from pilosebaceous units, eccrine sweat glands or apocrine sweat glands, and these tumors are classified into four groups that exhibit histologic features analogous to hair follicles, sebaceous glands, eccrine and apocrine glands.[1] These tumors are derived from multipotential undifferentiated cells present within the epidermis or its appendageal structures and the histologic features of a tumor are related to the activation of molecular pathways responsible for forming the mature adnexal structure.[1] Vast majority of appendageal tumors are benign and most of the benign skin adnexal tumors are asymptomatic papules or nodules and often difficult to diagnose clinically. However anatomic location, number and distribution of lesions provide important clue.[2] Multiple lesions are a reliable clinical clue to the benign nature of the condition. They are however confirmed by histopathology and immuno histochemistry may help in confirmation of the diagnosis.[3]

Head neck region is unique because of its rich distribution of pilosebaceous apparatus, apocrine as well as eccrine sweat glands. It has also been previously documented that ATs predominate over head neck area.[4]

Majority of these tumors are benign and the malignant ones are usually irregularly shaped, solitary, rapidly growing plaques or nodules that have a tendency to ulcerate. Risk of malignant degeneration varies with individual lesions.[5] Local recurrence is well recorded but metastases is rare with the exception of the malignant eccrine and apocrine gland derived tumors and sebaceous carcinoma.[6]

Management is usually for cosmetic reasons and more often than not the diagnosis is made on excision biopsy, especially when patients present to a surgeon for a nodule. It is likely that many nodules that are excised are not examined histopathologically and those that are may be reported as benign skin appendageal tumors without further characterization. Hence, the diagnosis of an appendageal tumor may appear to lie firmly in the realm of the histopathologist especially when there is a solitary papule or nodule.

So the present study was conducted in patients presenting with clinical features suggestive of benign skin appendageal tumors attending to outpatient department of DVL, Kurnool medical college/ GGH, Kurnool attending to outpatient department of DVL, Kurnool medical college/ GGH, Kurnool.

The objective of the study was to study the clinical and histological features suggestive of benign skin appendageal tumors attending to outpatient department of DVL, Kurnool Medical College/ GGH, Kurnool.

METHODS

This is a descriptive observational study conducted among 50 patients presenting with clinical features suggestive of benign skin appendageal tumors attending at outpatient department of DVL, Kurnool Medical College/GGH, Kurnool between January 2016 to June 2017.

Inclusion criteria

Clinically suspected cases of benign skin appendageal tumors with a confirmed histopathology were included in the study.

Exclusion criteria

Patients without a confirmed histopathology and those not willing to give informed consent were excluded from the study.

Patients were included in this study after informed consent and ethical clearance presenting to department of DVL. Duration of study will be from January 2016 to June 2017. Patients included in the study were from both sexes and all ages. All cases were studied systematically. A detailed history was elicited with particular reference to onset, duration and type of lesion, predisposing factors, genetic and occupation factors and systemic disease if any. A thorough local and systemic examination was carried out. Routine laboratory investigations were done in all cases. All the cases were biopsied. For smaller lesions which could be excised and closed primarily, excisional biopsy was done. Skin was thoroughly cleaned with spirit and anesthetised with 2% lignocaine, after the test dose. Punch biopsy or excisional biopsy was done depending on the size of skin lesion. The specimen was fixed in 10% formalin and sent to department of pathology for histopathological study. The data thus collected was entered in MS excel sheet and analysed by using SPSS 21 version. Data was expressed in recent ages.

RESULTS

Out of 50 cases, 41 cases were females and 9 were males. The female and male ratio was being 4.5:1. The highest age incidence was in the age group of 21-30 years in 24 cases (48%), followed by 31-40 years in 21 cases (42%). Among females, maximum number of cases was in the age group of 21-30 years [19 cases (46%)] followed by 31-40 years **[**18 cases (44%)].

Table 1: Age and sex wise incidence of skin tumours.

Age group (in years)	Male	Female	Total	%
11–20	1	0	1	2.0
21–30	5	19	24	48.0
31–40	3	18	21	42.0
41–50	0	1	1	2.0
51–60	0	1	1	2.0
61–70	0	1	1	2.0
71–80	0	1	1	2.0
Total	9	41	50	100.0

Among males, maximum number of cases was in the age group of 21-30 years **[**5 cases (56%)], followed by 31-40 years **[**3 cases (33%)].

Table 2: Incidence of various types of benign skin appendageal tumors according to tissue of origin.

Type of tumor	No. of cases	%
Eccrine gland tumors	43	86.0
Apocrine gland tumors	2	4.0
Hair follicle tumors	4	8.0
Sebaceous gland tumors	1	2.0
Total	50	100.0

The commonest tumors in this study were eccrine gland tumors i.e. 43 cases (86%), followed by hair follicle tumors 4 cases (8%), apocrine gland tumors 2 cases(4%), sebaceous gland tumors 1 case (2%).

Syringomas were the commonest tumors (38 cases, 76%), followed by tricho epitheliomas (3 cases, 6%), 4% cases

each of eccrine hidrocystoma, cylindroma, apocrine hidrocystoma.

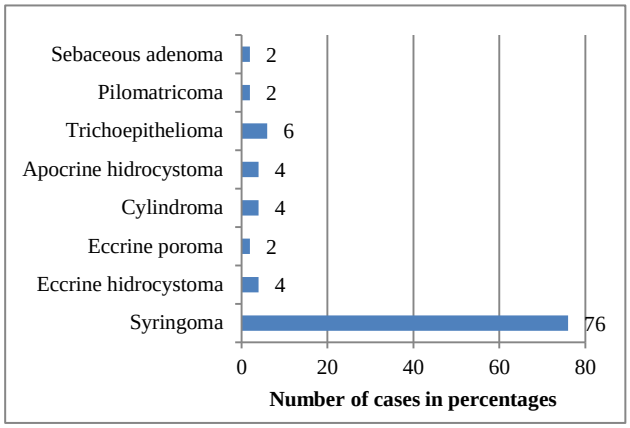

Figure 1: Incidence of various types of benign skin appendageal tumors in each group.

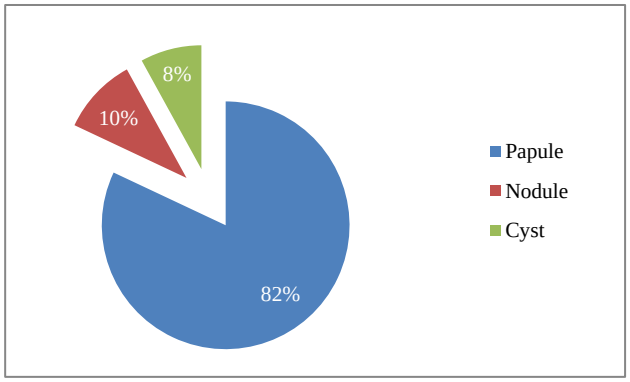

Figure 2: Distribution according to presenting lesions.

The Figure 2 shows the commonest presenting lesion was papule (82%), followed by nodule (10%), cyst (8%).

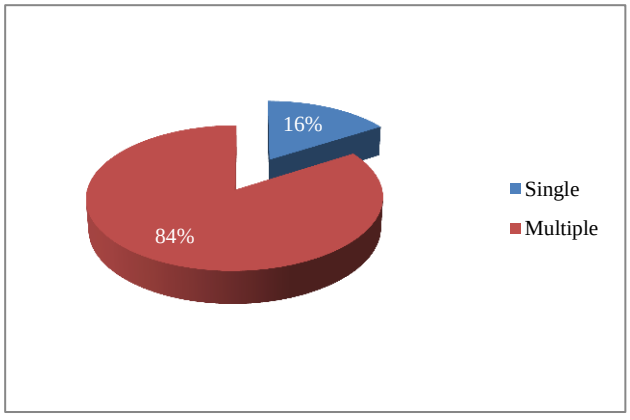

Figure 3: Distribution according to number of lesion.

This Figure 3 shows that majority of the cases presented with multiple lesions i.e., 42 cases (84%) and 8 cases (16%) with single lesions.

Table 3: Distribution according to site.

Site	No. of patients	%
Face	47	94.0
Neck	1	2.0
Extremities	1	2.0
Foot	1	2.0
Total	50	100.0

Commonest site is face (94%). Lesions were rarely observed on neck, extremities, foot (2% each).

DISCUSSION

In our study out of 50 cases, 41 cases were females and 9 were males. The female and male ratio was being 4.5:1. The highest age incidence was in the age group of 21- 30 years [24 cases (48%)], followed by 31-40 years [21 cases (42%)]. Among females, maximum number of cases was in the age group of 21-30 years [19 cases (46%)], 31-40 years [18 cases (44%)]. Among males, maximum number of cases was in the age group of 21-30 years [5 cases (56%)], followed by 31-40 years [3 cases (33%)].

Kala et al stated in their study that amongst the cases, 36 (56.25%) were females and 28 (43.75%) were males.[7] Male to female ratio was 1:1.29. The age range was 7 months to 93 years. People in 3rd decade of life (10/64; 15.63%) were most frequently affected, followed by 6th and 7th decades (9/64; 14.06% each).

The age at the time of presentation, as reported in various studies, falls between 20-40 years.[8-11] However, Nair reported 11-20 years as the commonest affected age group and Sharma et al, reported them to be common in elderly (51-60 years).[12,13]

In our study, the commonest tumors in this study were eccrine gland tumors i.e. 43 cases (86%), followed by hair follicle tumors 4 cases (8%), apocrine gland tumors 2 cases (4%), sebaceous gland tumors 1 case (2%) (Table 2).

Kala et al observed in her study that there were 52 (81.25%) benign and 12 (18.75%) malignant tumours; ratio being 4.3:1.[7]

In our study, syringoma was the commonest tumors (38 cases, 76%), followed by Tricho epitheliomas (3 cases, 6%), 4% cases each of eccrine hidrocystoma, Cylindroma, apocrine hidrocystoma (Figure 1).

Kala et al stated that tumours with follicular differentiation formed the major group (33/64; 51.56%). Pilomatricoma (24/64; 37.5%) and proliferating trichilemmal tumour (6/64; 9.38%) were the commonest benign and malignant tumours respectively.[7] One of the cases diagnosed as sebaceoma was associated with Muir

Torre syndrome. In our study, 76.66% of clinically suspicious cases were proved to be of appendageal origin.

Saha et al observed that 76.66% of clinically suspicious cases were proved to be of appendageal origin.[14] Syringoma constituted the bulk of the tumor (40%) followed by trichoepithelioma (26%), syringocyst-adenoma papilliferum (17%), sebaceous hyperplasia (13%), and vellus hair cyst (4%), respectively.

Nair observed in his study that tumors with eccrine differentiation constituted the maximum, 17 cases (51.5%); followed by tumors with hair differentiation, 12 cases (36.36%); tumors with sebaceous differentiation, 2 cases (6.06%); and apocrine tumors, 2 cases (6.06%).[12] Syringoma constituted the commonest eccrine tumor, 14 cases (42.42%); while trichoepithelioma was the commonest hair tumor, 9 cases (27.27%). The other eccrine tumors were eccrine spiradenoma, 2 cases (6.06%); and nodular hidradenoma, 1 (3.03%). The other hair tumors were pilar cyst, 2 (6.06%); and pilomatricoma, 1 (3.03%). The sebaceous tumors constituted 2 cases (6.06%) of nevus sebaceous. Syringo-cystadenoma papilliferum, 1 (3.03%); and cylindroma, 1 (3.03%), constituted the apocrine tumors

In our study, commonest site is face (94%). Lesions were rarely observed on neck, extremities, foot (2% each) (Table 3).

Saha et al observed that all cases of trichoepithelioma were concentrated around nose and surrounding area. Periorbital area and cheeks were found to be the commonest site for syringoma.[14]

CONCLUSION

On the basis of differentiation, the commonest tumors recorded were eccrine gland tumors (86%) followed by hair follicle tumors (8%). Among individual tumors, syringomas constitute the largest group (76%) followed by trichoepitheliomas (6%). The highest age incidences was in 3rd decade (48%), followed by 4th decade (42%).

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