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Study Of General And Histopathological Characteristics Of Sweat Gland Adnexal Skin Tumors-7 Year Study

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Abstract

Background ; The clinical presentation, biological behavior and histological pattern of skin tumors vary widely . [1] The histopathology of tumors involving follicular, sebaceous, and apocrine epithelium is sometimes difficult to interpret .[2] Difficulties arise from the diversity and complexity of histological, ultrastructural and histochemical studies, complex nomenclature, multiple classifications and disagreements in the histogenesis of some entities, and the relative rarity of these tumors. [3]

This study was a retrospective and prospective study between September 2004 and September 2011. Total 18 sweat gland tumours (benign-16 malignant -2) obtained out of 133 skin tumours in and around solapur region . necessary general and special stainsdone with clinicopathological correlation .

RESULTS AND OBSERVATIONS: In the present study benign adnexal tumours formed the majority (82.8%).

There were 16 patients with sweat gland differentiation accounting for 55.2% of the benign adnexal tumours.

In the present study benign tumours formed the majority (82.8%).

Among the benign tumours the occurrence of sweat gland tumours (55.1%) was highest followed by hair follicle tumours (44.8%)

DISCUSSION; The occurrence of Chondroid syringoma and eccrine poroma (31.2%) was equal in the present study followed by spiradenoma (18.9%) ,hidradenoma (12.6 %) and apocrine hidrocystoma(6.3%).

In the study by Solanki RL[(4,11)] et al hidradenoma (27.6%) was the most common followed by 23.4% each of chondroid syringoma and syringocystadenoma papilliferum.In the study by Nair SP [6]et al syringoma (73.7%) was the most common tumour.In the study by Reddy [4] et al hidradenoma(67.4%) was the most common tumour.

Key words: tumours, skin, adnexa,study .

AIMS AND OBJECTIVES

1. To study the total number of sweat gland adnexal skin tumors in our institution from September 2004 to September in 2011.
2. To study the general and histopathological characteristics of sweat gland adnexal skin tumors and classify them according to the classification of the World Health Organization (WHO).
3. Compare and contrast our results with various studies by other authors.

Classification of Appendageal Tumors

Adnexal tumours of skin, though rare, have been recognised from later part of 19th century. The first case of a mixed tumour of skin was reported by Nasse.[6] Historically, tumors of the epidermal appendages have been classified into four groups that exhibit histologic features analogous to hair follicles, sebaceous glands, apocrine glands, and eccrine glands, according to a gradient of decreasing differentiation.[7] Adnexal tumours may display more than one line of differentiation, rendering precise classification more difficult.[7]

Material s and method '; Department of Pathology, caters to a large area in and around solapur . The department has received a total of 15405 specimens for HPR during the study period .Out of these 3201 were diagnosed as cancers of various sites in the body and cancers of skin accounted for 35 cases 1.09%) of this.

Table 23: Distribution of benign sweat gland tumours

Tumours	No. of cases in males	No. of cases in females	Total No. of cases	Percentage
Chondroid syringoma	4	1	5	31.2
Apocrine hidrocystoma	0	1	1	6.3
Eccrine spiradenoma	0	3	3	18.6
Eccrine poroma	3	2	5	31.2
Hidradenoma	1	1	2	12.6
Total	9	7	16	100

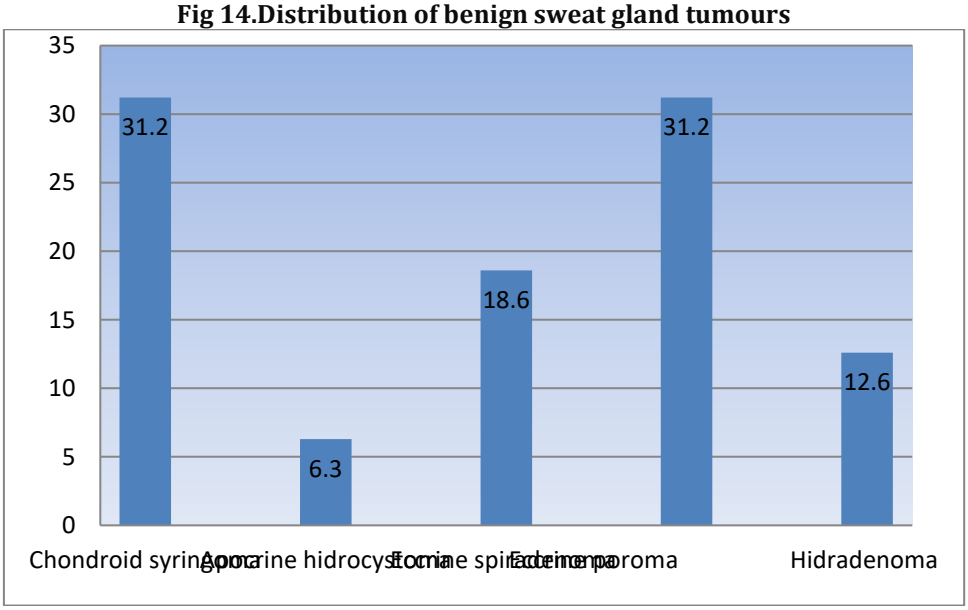
Sweat gland tumours constituted 55.17% of benign adnexal tumours out of which 31.2% of cases were of eccrine poroma and chondroid syringoma followed by 18.6 % of spiradenoma, 12.6% of hidradenoma, 6.3% of apocrine hidrocystoma. The male to female ratio was 1:1.2 with reference to table 22. These tumours may show eccrine or apocrine differentiation.

Hidradenoma: Two cases were encountered in which 1 case occurred in 35 year female on abdomen & another one on 84 year male on back region .Histologically the tumour showed well circumscribed lobular mass with cystic change composed of clear cells and eosinophilic cells and the cytoplasm clear cells showed PAS positivity (Fig.No) .

Chondroid Syringoma: Five cases were noted in which three cases were seen in males with two cases in males. Two cases occurred on palm,two on nose and one on lower lid.. Histologically the epithelial cells were arranged in islands, tubules and cords in a myxoid stroma (Fig.No.)

Apocrine Hidrocystoma: One case was encountered in a 30 year old female who presented with a ulceroproliferative growth in left forearm . Areas showed cysts lined by columnar cells with apical snouting .

Fig 14.Distribution of benign sweat gland tumours



The above diagram shows equal distribution of both eccrine poroma and chondroid syringoma five cases(31.2%),eccrine spiradenoma
three cases (18.6%),hidradenoma two cases (12.6%) and one case of apocrine hydrocystoma (6.3%).

DISCUSSION

Benign tumours of skin appendages

There were 25 cases of benign appendageal tumours in the present study.

Table 32: Comparison of distribution of benign appendageal skin tumours

Author / Tumours	Solanki RL [79] et al	Nair SP[78] et al	Reddy[48] et al	Kartha[48] et al	Present study
Hair follicle tumours	22(23.4%)	12(36.36%)	13(22%)	35(42.2%)	13(44.8%)
Sweat gland tumours	50(53.2%)	19(57.56%)	43(73%)	45(54.2%)	16(55.2%)
Sebaceous gland tumours	22(23.4%)	2(6.06%)	3(5%)	3(3.6%)	- -
Total No of cases	94	33	59	83	29

The occurrence of hair follicle tumours (52%) was higher in the present study. The occurrence of sweat gland tumours was higher in the studies done by Solanki RL[79] et (53.2%) , Nair SP[78] et al (57.56%) and Kartha[48] et al (54.2%)

Tumours of sweat gland differentiation

There were 16 patients with sweat gland differentiation accounting for 55.2% of the benign adnexal tumours.

Table 34: Comparison of distribution of benign tumours of sweat gland

Tumours	Solanki RL [8] et al	Reddy [6] et al	Nair SP [24,6] et al	Present study
Hidradenoma	13(27.6%)	29(67.4%)	1(5.3%)	2(12.6%)
Cylindroma	3(6.4%)	1(2.3%)	1(5.3%)	-
Chondroid syringoma	11(23.4%)	2(4.6%)	-	5(31.2%)
Apocrine hidrocystoma	-	-	-	1(6.3%)
Syringoma	-	3(7%)	14(73.7%)	-
Spiradenoma	5(10.6%)	2(4.6%)	2(10.5)	3(18.9)
Eccrine poroma	2(4.3%)	-	-	5(31.2%)
Unclassified	-	39(7%)	-	-
Total No of cases	47	43	19	16

The occurrence of Chondroid syringoma and eccrine poroma (31.2%) was equal in the present study followed by spiradenoma (18.9%) ,hidradenoma (12.6 %) and apocrine hidrocystoma(6.3%).

In the study by Solanki RL([4,11]) et al hidradenoma (27.6%) was the most common followed by 23.4% each of chondroid syringoma and syringocystadenoma papilliferum.

In the study by Nair SP [6] et al syringoma (73.7%) was the most common tumour.

In the study by Reddy [6] et al hidradenoma(67.4%) was the most common tumour.

CONCLUSION

Skin tumours constitute a small but significant proportion of patients with cancer. The skin is a complex organ. Because of its complexity a wide range of diseases can develop from the skin including tumors from surface epidermis, epidermal appendages and dermal tissue.

The diagnosis of skin tumours presents unique difficulties, in part, related to the wide variety of tumors and the complicated nomenclature. The study of histogenesis of the adnexal tumours is interesting, fascinating and challenging because of wide range of differentiation

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