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Lipomas of head and neck

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ABSTRACT

Background: Lipomas are rare in head and neck. In head and neck it is more common in posterior triangle.
Methods: All patients with lipoma presenting to the OPD in a tertiary care centre.
Results: Lipomas were common in posterior triangle and was more common in males.
Conclusions: Ultrasound and FNAC aid in diagnosis of Lipoma.

Keywords: Lipoma, Head and neck

INTRODUCTION

Lipomas are most common benign mesenchymal neoplasms found in any location where fat is present. Their occurrence in head and neck is rare. Most common age of onset is 5th and 6th decade of life. Males are 10 times more affected than females.[1] Prevalence is 1%.[2] 15% of lipomas are found in head and neck. Most of it is present in posterior cervical subcutaneous tissue. They comprise about 0.6% of benign neoplasms of larynx and hypopharynx. Lipoma can harbour elements other than adipose tissue like blood vessels, muscle fibres, fibroconnective tiisue and bone tissue.[3] Although lipomas are generally diagnosed by clinical examination the imaging studies and histopathological examination can aid in establishing the diagnosis. Ultrasonography and histopathological examination aided us in establishing the diagnosis in this study.

METHODS

This was an observational study carried out in the department of otorhinolaryngology, Sri Siddhartha Medical College, Tumkur, Karnataka from January 2016 to December 2016. A total of 25 patients of the 3432 out patients were included. In the same period 500 cases of lipoma were diagnosed in various departments of our institution.

Patients aged more than 16 years who presented with longstanding swelling in the head and neck region, which were proven as lipoma either by FNAC or histopathological examination were included in the study.

The selected patients were subjected to detailed history followed by complete clinical examination. All patients underwent either ultrasonography or computed tomography over the region of the swelling. They also underwent FNAC of the swelling and the diagnosis of lipoma was made. Patients later underwent surgical excision and the diagnosis was confirmed by histopathology. Chi-square test was used to establish the difference.

Procedures

Patients with lipoma in posterior triangle underwent excision by making an elliptical incision over the swelling followed by dissection under local anaesthesia with sedation. Patients with lipoma in the submandibular region underwent excision through standard

submandibular approach approach. In case of laryngeal lipoma direct laryngoscopy was performed along with excision.

RESULTS

In our study the age of patients varied between 20 years and 70 years. They were no patients who were above 71 year.

There was one patient in the age group of 21-30 years, 2 patients in the group of 31-40 years, 4 patients in 41-50 years, 8 patients in 51-60 years and 5 patients in 61-70 years.

Table 1: Age distribution.

Age group (in years)	No. of out patients	Percentage (%)	No. of cases
21-30	549	16	1
31-40	755	22	2
41-50	961	28	4
51-60	412	12	8
61-70	755	22	5

The age group of out patients during that period was as follows.

The chi-square test showed significant difference in the age-group prevalence. It was higher in the group of 51-60 years. P value was 0.04.

Sex distribution

In this series there were 20 male patients and 5 female patients.

Table 2: Sex distribution.

Sex	No. of out patients	Percentage (%)	No. of cases
Males	1842	53.7	20
Females	1590	46.3	5

Sex distribution among our out patients was as follows. Chi-square test showed significant difference. P-value was 0.01.

Site distribution

In this series there were 8 patients with Lipoma in the submandibular region, 15 in the posterior triangle and one each in the larynx and forehead.

Site distribution of lipoma cases in the other departments were as follows. 150 patients had lipoma in the lower limb, 100 patients had lipoma in the upper limb, 30 patients had lipoma in the head and neck and 110 each in thorax and abdomen.

Table 3: Site distribution.

Site	No. of cases	Percentage (%)
Submandibular region	8	32
Posterior triangle	15	60
Larynx	1	4
Fore head	1	4

Figure 1: Showing submandibular lipoma.

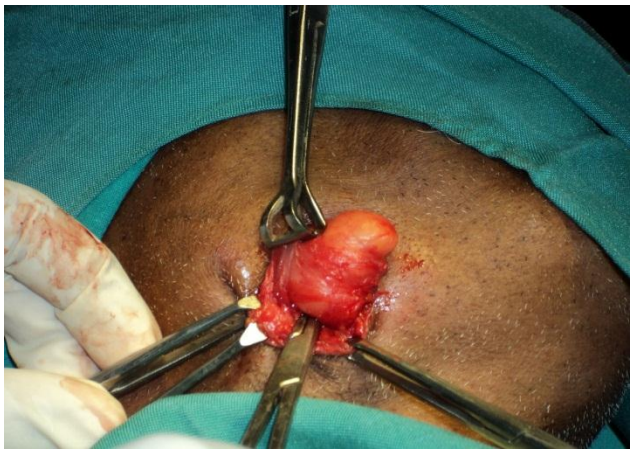

Figure 2: Surgical procedure.

Figure 3: Specimen.

Table 4: Site distribution in other departments.

Site	No. of cases	Percentage (%)
Lower limb	150	30
Upper limb	100	20
Head and neck	30	6
Thorax	110	22
Abdomen	110	22

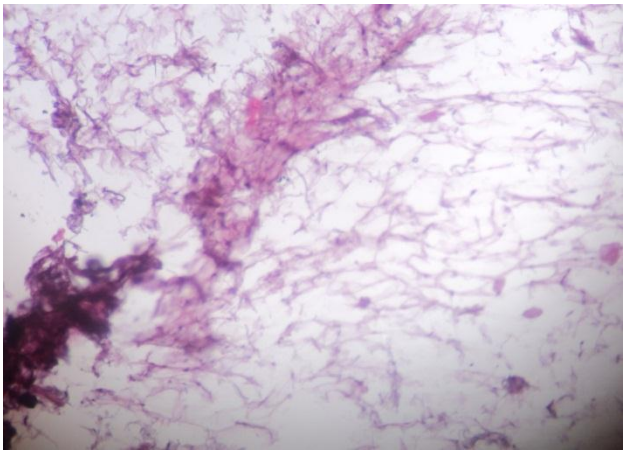

Figure 4: Histopathological examination.

DISCUSSION

Although lipomas are relatively uncommon in the head and neck region they should be kept as one of the differential diagnosis of neck mass. Annual incidence is 1 in 1000 individuals. Of those lipomas that occur in head and neck region, the most common location is posterior neck[1].

They are classified into simple lipoma, fibrolipoma, mixolipoma, chondroid lipoma, angiolipoma, angio-myolipoma, myelolipoma, spindle cell lipoma, sialolipoma, pleomorphic lipoma and atypical lipoma.[3] Conventional lipomas have chromosomal abnormalities of 12q14-15,6p and 13q9.[4]

Lipomas account for approximately 16% of soft-tissue mesenchymal tumors.[5]

Histologically, simple lipomas consist of mature adipocytes with uniform nuclei and scanty connective tissue; fibrolipomas, however, consist of fat cells interspersed in broad bands of dense connective tissue. Simple lipomas have no site, age, or sex predilection unlike fibrolipomas which are more frequent in the cheek mucosa and show a slight female predominance. Angiolipoma is a rare histological subtype seen due to overgrowth of vascular tissue and usually affects adolescent males and subjects in their early 20s. Myxoid lipomas of the oral cavity are rare. Microscopically, these lipomas were well-circumscribed and contained adipocytes of variable size and myxoid areas.

Another type is called the infiltrating type, due to its tendency to invade muscles or grow between them. Although uncommon in the oral cavity, it is difficult to treat due to its ability to infiltrate adjacent muscle and recur locally. Due to the infiltrating nature, it is sometimes confused with a liposarcoma. However, both can be differentiated histologically as liposarcoma will have areas of lipoblastic proliferation, cellular pleomorphism, increased vascularity and mitosis, feature that are not present in infiltrating lipoma. They can also be differentiated by immunohistochemical detection of the immune marker "al 2 protein," which is expressed in lipoblasts of liposarcoma and will not be seen in infiltrating lipoma.[6]

Lipomas usually present as solitary lesions, but multiple site involvement may be seen in alcoholics, diabetes mellitus and syndromes such as Madelung's disease and Kobberling-Dunningan syndromes. Lipomas in the upper aero-digestive tract are asymptomatic in the beginning and gradually progress in size. This is the cause of late diagnosis. They cause functional deficits like dysphagia, neck pain and obstructive sleep apnoea.[7]

There have been reports of deep intra muscular lipoma in the submandibular region by Adachi etal.[8] Pusiol etal reported an oncocytic sialolipoma of submandibular gland.[7] Gultekin et al reported a case of parosteal lipoma.[9] Furlong etal in their study reported that lipomas in the head and neck are common in the parotid region followed by buccal mucosa and lip.[10]

As previous studies were case reports, we present to you a descriptive study involving 25 patients.

In our study we found lipomas to be common in posterior triangle followed by submandibular region. It was rare in upper aero-digestive tract.

CONCLUSION

When it comes to the diagnosis, of lipoma clinical examination alone is not sufficient to identify the nature and exact location of the mass. In such a situation, imaging and histopathological examination can be useful. Ultrasound and magnetic resonance imaging can differentiate lipomas from other soft tissue tumours. In the case reported here, ultrasonography and histopathological examination were useful for the diagnosis. The prognosis of superficial lipoma is good and the risk of recurrence is low.

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