

A CRITICAL REVIEW OF THE PATTERN OF LIPOMAS AT JOS UNIVERSITY TEACHING HOSPITAL.

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ABSTRACT

Introduction: Lipoma, a tumor of mature fat, represents the most common mesenchymal neoplasm. It may be single or multiple and may be subcutaneous or deep seated.

Materials and Methods: Information on all previously diagnosed benign lipomatous tumour in Jos university teaching hospital from 2007 to 2014 (8years review) were retrieved from the departmental registry as well as the biodata encompassing age, sex, site of biopsy as well as dimension of tumour.

Results: Three hundred and twelve cases of Lipomas were recorded constituting (2,931) 10% of all benign tumours analysed. There were 128 Male and 184 female with female preponderance (M:F ratio 1: 1.4). The histological subtypes seen were represented by the following percentages with Conventional lipoma 291 (93.2%) commonly seen and peak at the 4th decade. This is followed by fibrolipoma 10 (3.2%) and Angiolipoma 4(1.3%). Hibernoma was seen in a single individual. Whereas lipoblastoma and myoblastoma accounted for 1% each and are seen in 3 cases. The back region (shoulder) was mostly affected by lipoma followed closely by the upper limb, then head and neck, these accounted for 21.9%, 19.6% and 18.6% respectively.

Conclusion: Lipoma are common in our environment, conventional lipoma is the most common with the subcutaneous tumors featuring prominently at the back shoulder region. The deep seated lipomas are uncommon they represented just 3.1%. The thigh appears to be the anatomical site for the largest lipomas in our series.

Key Words: Lipomas, Patterns, Critical review

INTRODUCTION

Lipoma, a tumor of mature fat, represents the most common mesenchymal neoplasm.¹

It may be single or multiple and may be subcutaneous or deep seated. It has stirred little interest in the past and has been largely ignored in the literature. This continued neglect is not surprising, considering that most lipomas grow insidiously and cause few problems other than those of a localized mass.² Many lipomas remain unrecorded or are brought to the attention of a physician only if they reach a large size or because of cosmetic problems or complications because of their anatomic site. As a consequence, the reported incidence of lipoma is probably much lower than the actual incidence. Nevertheless, recorded incidence of lipomas continue to show that lipoma is the most common soft tissue tumour. Lipoma is rare during the first two decades of life and usually makes its appearance when fat begins to accumulate in inactive individuals. Most of these lipoma become apparent in patients 40-60 years of age. When not excised, they persist for the

remainder of life, although they hardly increase in size after the initial growth period. The Statistics as to gender incidence vary, but most reported higher incidence in men. There seems to be no difference in regard to race; and in the United States, Whites and African Americans are affected in proportion to their distribution in the general population.^{3,4}

Lipomas are seen in every part of the body where there is a cell, most reported are the deep seated tumor which usually present with variable clinical symptoms, as compared with the subcutaneous lipomas that cause few complaints or complications and present little diagnostic difficulty and there hospital presentation is mainly for cosmetic reasons.^{3,4}

The diagnosis of lipoma is clinical with histopathological diagnosis serving as adjunct to confirmed and rule out any differential diagnosis. Our study was aimed at reviewing the histological pattern and frequency of benign lipomatous tumour at Jos University Teaching Hospital.

MATERIALS AND METHODS

Information on all previously diagnosed benign lipomatous tumour in Jos university teaching hospital from 2007 to 2014 (8years review) were retrieved from the departmental registry as well as the biodata encompassing age, sex, site of biopsy as well as dimensions of the tumour. Paraffin embedded, formalin fixed tissue blocks were retrieved and sections of 5um were cut and stained with hematoxylin and eosin (H/E) where necessary. The slides were reviewed under the light microscope and the lipoma were classified based on histologic types. Results are presented in simple frequency distribution tables.

RESULTS

Three hundred and twelve cases of Lipomas were recorded constituting (2,931) 10 % of all benign tumours analysed within the eight years under review, There were 128 Male and 184 female with female preponderance (M:F ratio 1: 1.4) The aged of the patients range from 1 year to 85years with a mean age of 40years, however the peak age at diagnosis was in the 4th decade of life (Table I). Most of the patients were seen within the 4th and 5th decade of life representing 56% of all the lipomas.

The histological subtypes seen were represented by the following percentages with Conventional lipoma 291 (93.2%) commonly seen and peak at the 4th decade. This was followed by fibrolipoma 10 (3.2%) and Angiolipoma 4(1.3%). Hibernoma was seen in a single individual. Whereas lipoblastoma and myoblastoma accounted for 1% each and are seen in 3 cases. All the cases of lipoblastoma were seen in the age range of 0-9 year.

Anatomical site are categorised into intraabdominal, abdominal, back, axilla, chest, breast, face/orbit, upper limb, lower limb gluteal region, groin, retro peritoneum and head and neck. The back region was mostly affected by lipoma followed closely by the upper limb, then head and neck, these accounted for 21.9%, 19.6% and 18.6% respectively.

The lowest anatomical site affected are the perineum and retroperitoneal region which accounted for 0.3% and 0.6% respectively. See table III. The largest lipomas weigh 3,000 grams, 2,600 grams and 2,000 grams removed from 46 years old male, 28 years old male and 85 years old male respectively. The anatomical site of removal is from the lower limb (thigh) for the 3,000 grams

and 2,600 grams and intraabdominal for the 2000grams.

DISCUSSION

lipoma is the most common type of soft tissue tumor, with an annual incidence of 0.21% in the general population. Lipomas comprise approximately one half of all benign soft tissue tumour.⁷ lipomas represented 10% of all benign tumours in our series, which is consistent with high prevalent rates reported in many series.^{12,7} Although lipomas lesions remain unrecorded and most come to the attention of a physician only when they are large and cause a cosmetic problem or interfere with function because of their anatomic location., Nonetheless, lipomas far out numbered all other soft-tissue tumors and are the most common neoplasms of mesenchymal origin. The female predominance (1.4:1) of lipoma in our study may be connected with fact that females are more concerned with cosmesis and most lipomas are brought to the attention of the physician if they are large reach or for cosmetic reasons.⁷ Most lipomas are seen in the 4th and 5th decade of life, consistent with several studies, e.g. study 8. Lipoma is rare during the first two decades of life and usually makes its appearance when fat begins to accumulate in inactive individuals. Lipomas become apparent in patients 40-60 years of age.⁷

Conventional lipoma was the most common histological subtype of lipoma seen in this study accounting for 93.2% of cases; followed by fibrolipoma. This finding is in keeping with other similar studies^{8,10}. Hibernoma, an unusual tumor of brown fat was seen in a case. Lipoblastoma and myoblastoma are also rare cases. The three cases of lipoblastoma are seen within the age bracket of 0-9 years which is in keeping with the fact that Lipoblastoma is a tumor of childhood.

Lipoma favoured the back region 21.9 %, followed closely by the upper limb (19.6%) and, head and neck 18.6%. This anatomical distribution confirmed earlier reports^{21,11}. The breast in female and gluteal region are normal paramount site for adipose tissue normally, however, intra-mammary and gluteal lipomas are rare. We recorded (5.1%) cases in the breast, and (1.9%) in gluteal region. Intraabdominal, and retroperitoneal which are deep seated lipoma are rare in our series.

CONCLUSION

Lipoma are common in our environment, conventional lipoma is the most common, while the subcutaneous tumors featuring prominently at the back shoulder region. It displayed a slight female preponderance with peak incidence in the fourth decade of life. The deep seated lipomas are uncommon they represented 3.1% of the total cases studies. The thigh appears to be the anatomical site for the largest lipomas in our series.

Table I: Age distribution of Lipoma

Histologic type	Age in years									Total
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	
Conventional	9	1	39	93	75	47	15	9	3	291
Fibrolipoma	0	0	1	4	1	3	1	0	0	10
Angiolipoma	0	0	1	1	1	0	0	1	0	4
Myolipoma	0	0	0	0	1	1	1	0	0	3
Hibernoma	1	0	0	0	0	0	0	0	0	1
Lipoblastoma	3	0	0	0	0	0	0	0	0	3
Total	13	1	41	98	78	51	17	10	3	312

Table II: Sex distribution of Lipoma

Histologic type	Male	Female
Conventional lipoma	117	174
Fibrolipoma	5	5
Angiolipoma	3	1
Lipoblastoma	3	0
Myolipoma	0	3
Hibernoma	0	1
Total	128	184

Table: HL ANATOMICAL DISTRIBUTION OF LIPOMA

Histology type/size	ABD	AX	BK	BRT	CHT	FACE/ORB	GL	GR	HN	INTRABD	LI	OR	PN	RETRO	UL
Angiolipoma	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
Lipoma	8	7	59	16	10	19	6	6	56	7	49	2	0	0	55
Fibrolipoma	1	0	2	0	1	1	0	0	0	1	0	0	0	0	4
Hibernoma	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Lipofibroma	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0
Myolipoma	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
Total (%)	9(2.9%)	7(2.2%)	62(21.9%)	16(5.1%)	12(3.8%)	12(3.8%)	6(1.9%)	6(1.9%)	57(18.3%)	8(2.5%)	59(16.0%)	2(0.6%)	1(0.3%)	23(6.7%)	61(19.6%)

KEY:

ABD	: Abdominal Wall	AX	: Axilla
BK	: Back	BRT	: Breast
CHT	: Chest	FACE/ORB	: Face/Orbit
GL	: Gluteal region	GR	: Groin
HN	: Head/Neck	Intraabd	: Intra abdominal
LI	: Lower limb	OR	: Oral
PN	: Perineum	Retr.P	: Retroperitoneal
UL	: Upper limb	Lipoma	: conventional lipoma

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