SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://saspjournals.com/sasjs/

OPEN ACCESS

Surgical Management of Giant Lipoma: About A Case of Scapular Region

Badarou Chaibou*, Hatim Abid, Driss Oudhriri, Mohammed Elidrissi, Abdelhalim Elibrahimi, Abdelmajid Elmrini

Department of Traumatology and Orthopedic Surgery, University Hospital Center Hassan II, Fes Morocco

DOI: 10.36347/SASJS.2019.v05i09.002 | **Received:** 06.09.2019 | **Accepted:** 14.09.2019 | **Published:** 20.09.2019

***Corresponding author:** Badarou Chaibou

Abstract **Case Report**

Lipomas are the most frequently tumors in all benigns tumors of the soft tissues. The lipoma is qualified as giant when the excision piece exceeds 10 cm or 1 kg of weight. Through this clinical case, authors highlight clinical expression, non-esthetic and functional gene related to the giant character of the tumor, compressing some muscles of the rotator cuff. It was a 64-year-old patient, without pathological antecedents, with scapular region mass, evolving for 20 years. The diagnostic steps were clinical examination, magnetic resonance imaging and biopsy (histology). The treatment was surgical by complete and aesthetics resection. The diagnosis of lipoma was confirmed by the anatomopathological examination of the mass. The operative follow-up was simple with satisfactory results, without recurrence at the last follow-up of 12 months

Keys words: Lipoma; giant; surgical management.

Copyright @ 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

Lipomas are the most common tumors (16-50%) of all benign soft tissue tumors [1]. They correspond to a proliferation of mature and slow-growing adipocytes [2], sometimes encapsulated. They can locate anywhere in the body [3], with 15 to 20% located around the head, neck and back [4]. The lipoma is qualified as giant when the excision piece exceeds 10 cm or 1 kg of weight [3]. They are usually asymptomatic, but some cases have been reported with compression signs. We report another case of giant lipoma interesting the right scapular region with muscular discomfort shoulder's mobility disorders.

CLINICAL CASE

It was a 64-year-old patient, right handed laterality and without significant pathological antecedents, who had a mass in the right scapular region, evolving since 20 years, painless, mobile with respect to both planes and hindering the supine position. The patient reported a shoulder amplitudes limitation. On clinical examination, he had a mobile mass of elastic consistency located in right scapular region without cutaneous sign opposite nor sensory deficit downstream (Fig.1). The active mobilization of the shoulder objective a limitation of the abduction (at 110 °) and the lateral rotation (at 65 °). The muscular testing notes an infraspinatus weakness (Patte-test). The testing of the other muscles was normal. Standard radiography showed soft tissue opacification without calcification or bone involvement. A magnetic resonance imaging (MRI) showed the presence of a well-defined formation, with regular contours, described in hyper signal T1, T2 (Fig.2A), in hypo signal on the sequence with fat saturation, not enhanced after contrast, containing thin septa (Fig.2 B), moderately enhanced after gadolinium injection without intra lesion bud individualization. Aspect compatible with a lipoma. A surgical biopsy of the tumor was performed and the pathological examination was in favor of a lipoma. In a second step, under general anesthesia, we made an arciform cutaneous incision on the dome of the mass with careful dissection through a cleavage plane allowing complete excision of the mass (Fig.3). Then we proceeded to the excision of the surplus of the skin according to different positions of the limb during movement of the shoulder. The histological study of the excision specimen, which measured 25x20x15 cm and weighed 1655g found lipocytic lipoma without signs of malignancy (Fig.4). The patient had undergone rehabilitation of the shoulder and at the end of a retreat of ten months, the patient does not have a recurrence and the shoulder mobility is excellent with a good cutaneous elasticity (Fig.5)

Fig-1: Clinical aspect of the mass, locate on the scapular region

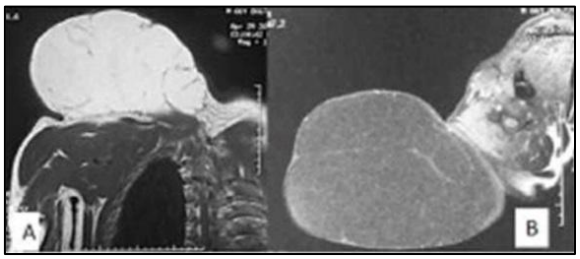

Fig-2: MRI of scapular region showing the mass with muscles contact, regular aspect, without locoregional invasion

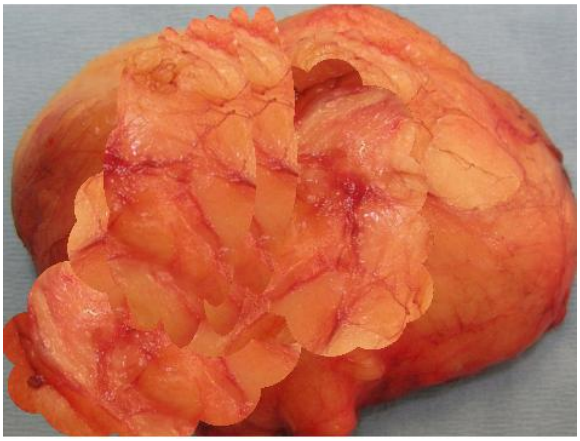

Fig-3: Complete excision of the mass. It measures 25x20x15 cm and weighed 1655g

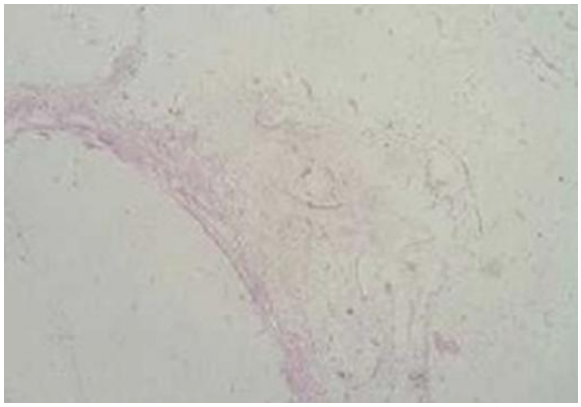

Fig-4: The histological study of the excision specimen, which measured 25x20x15 cm and weighed 1655g (Fig. 5), found lipocytic lipoma without signs of malignancy

Fig-5: Aesthetic aspect at the follow-up

DISCUSSION

Lipoma is a benign tumor consisting of mature fat [5]. It is often painless and usually results in a soft, regular and mobile tumor. Can be recognized by the clinical test described by Posch [6] which in case of lipoma the application of ice on the mass causes its solidification. Lipomas are benign tumors of extra neural origin and account for about 16% of mesenchymal tumors [7]. According to the world health organization (WHO) committee for classification of soft tissue tumors [8], they are classified into nine entities: lipoma, lipomatosis, nerve lipomatosis, lipoblastoma, angiolipoma, soft tissue myolipoma, chondroid lipoma. These benign adipocyte lesions can affect the bone: intraosseous lipoma, para-osteal lipoma. They can also affect the joints and tendons, either in focused form, or more commonly diffuse (arboreal lipoma). They are qualified as giant when the excision piece exceeds 10 cm in diameter or 1000g of weight [3]. They appear mostly around the fifth and sixth decade. Finally, in somes cases, they may come from juxta-articular regions or near the periosteum (para-osteo-lipoma),

they can reach the bone and cause cortical hyperostosis [9]. Clinically, superficial lipomas are often asymptomatic, slow-growing, fluctuating soft, lobulated, and motile. When they are localized in anatomical parades, they can be at the origin of a nerve compression causing sensitive-motors pains and disturbances downstream. Because of their size, they can lead to a limitation of mobility, like the case of our patient. The radiological investigations make the diagnosis of the lipoma in 71% of the cases. Computed tomography and especially nuclear magnetic resonance imaging (MRI) are useful in evaluating these lesions. MRI is the gold standard for soft tissue tumors because of its high sensitivity. It specifies the nature of the lesion, its local extension and its relationship with the vasculo-nervous elements. The characteristic aspect of the lipoma is a well-limited image in hyper signal on the T1 and T2 sequences, with reduction of the signal on the fat suppression sequences. In somes cases like ours, the image has fibrous septas, sometimes calcifications. After injection of gadolinium, the signal of the fibrous septa is moderately enhanced, but the fat keeps the same signal. The differential diagnosis is with other soft-tissue tumors such as ganglion cysts, giant-cell tumors, myxomas, angiolipomas, lipo-fibroma-intraneural and lipo-sarcoma [9]. This latter one is the differential diagnosis with the highest risk for the patient. It is the most common adult soft tissue sarcoma, with a frequency ranging from 1.1 to 2.5 / 1000 000 with a peak between 50 and 70 years [10]. It develops from subcutaneous fat or cellulite space, sometimes even from a pre-existing or recurrent lipoma. The identification and dissection of the vasculo-nervous elements must be careful to avoid iatrogenic lesions. The excision should be as complete as possible to minimize the risk of local recurrence. However, these remain exceptional [9, 11].

CONCLUSION

Lipomas are common in the back and scapular region, but rarely cause signs of compression. Diagnosis is easy with MRI. A first biopsy remains necessary before the excision then the histological examination of the excision mass remains obligatory to confirm the diagnosis and to eliminate the main differential diagnosis namely the lipo-sarcoma

Conflicts of interest

The authors declare that they have no conflict of interest.

REFERENCES

1. Fuchs, A., Henrot, P., Walter, F., Lochum, S., Vignaud, J. M., Stines, J., & Blum, A. (2002). Tumeurs graisseuses des parties molles des membres et des ceintures de l'adulte. *J radiol*, *83*(9 Pt 1), 1035-57.
2. Heid, E., & Chartier, C. (2002). Lipomes cutanés, lipomatoses, lipodystrophies. *EMC Dermatologie*, 98-615.
3. Terzioglu, A., Tuncali, D., Yuksel, A., Bingul, F., & Aslan, G. (2004). Giant lipomas: à series of 12 consecutive cases and a giant liposarcoma of the thigh. *Dermatologic surgery*, *30*(3), 463-467.
4. Enzinger, F.M., Weiss, S.W. (1995). Soft tissue tumors, 3rd edition, St. Louis: Mosby, 381-430.
5. Calandruccio, J.H., Jobe, M.T.(1998). In: Canale ST, editor. Campbell operative. Orthopaedics. Volume 4. 9th edition, St. Louis: Mosby-Year Book, Inc, 3704–5.
6. Posch, J.L.(1956). Tumors of the hand. J Bone Joint Surg, 38A (3):517–40.
7. Ersozlu, S., Ozgur, A.F., Tandogan, R.H. (2007). Lipoma of the index finger. DermatolSurg, 33:382–4.
8. Christopher, D., Unni, K., Mertens, F. (2002). Adipocytic tumors. In: WHO classifi- cation of tumors. Pathology and genetics: tumors of soft tissue and bone. Lyon, France: IARC, 19-46.
9. Chronopoulos, E., Ptohis, N., Chalazonitis, A. (2010). Patient presenting with lipoma of index finger. Cases journal, 3:20.
10. Laurino, L., Furlanetto, A., Orvieto, E., Del, Tos, A.P.(2001). Well-differentiated liposarcoma (atypical lipomatous tumors). SeminDiagnPathol, *18*(4):258–62.
11. Fnini, S., Hassoune, J., Largab, A. (2010). Lipome géant de la main. RevChir Main, *29*(1):447.