A Recurrent Subcutaneous Lipoma of the Para-Parotid Area

Corresponding Author: 
Dr. Constantino Ledesma-Montes, 
Chief of the Postgraduate Studies and Research, Faculty of Dentistry, 29000. - Mexico

Submitting Author: 
Dr. Constantino Ledesma-Montes, 
Chief of the Postgraduate Studies and Research, Faculty of Dentistry, 29000. - Mexico

Article ID: WMC003000
Article Type: Case Report
Submitted on: 11-Feb-2012, 07:32:42 PM GMT   Published on: 14-Feb-2012, 10:31:28 AM GMT
Article URL: http://www.webmedcentral.com/article_view/3000
Subject Categories: PATHOLOGY
Keywords: Mesenchymal tumors, Lipoma, Oral tumors, Recurrence, Adipose tissue, Parotid

How to cite this article: Ledesma-Montes C, Garces-ortiz M, Hernandez-flores F, Salcido-garcia J F, Aguirre-flores L, Sierra-rosas H. A Recurrent Subcutaneous Lipoma of the Para-Parotid Area. WebmedCentral PATHOLOGY 2012;3(2):WMC003000

Copyright: 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, provided the original author and source are credited.

Source(s) of Funding: None

Competing Interests: No competing interests
A Recurrent Subcutaneous Lipoma of the Para-Parotid Area

Author(s): Ledesma-Montes C, Garces-ortiz M, Hernandez-flores F, Salcido-garcia J F, Aguirre-flores L, Sierra-rosas H

Abstract

Lipomas are infrequent tumors of the parotid area; they usually present a benign, slow growth and rarely recur. The aim of this article is to report a unique case of a giant, recurrent lipoma with benign microscopic appearance located subcutaneously in the para-parotid area of a 42 year-old, male patient. After one year of the initial excision, patient returned with a larger tumor in the same area. Excision was done and a diagnosis of a recurrent giant lipoma was rendered. The patient is in close follow-up for the possibility of a well differentiated liposarcoma. We present a discussion on histogenesis of lipomas and stress on the need to make a careful review of the slides from recurrent lipomas in order to rule out well differentiated liposarcomas.

Introduction

Lipomas are benign tumors composed of mature white adipocytes and are the most common mesenchymal neoplasms in the adults. Microscopically they are composed of lobules of mature adipocytes, identical to the surrounding adipose tissue except for slight variation in the size and shape of the cells in lipomas [1]. They are relatively common in the upper back, neck, shoulder and abdomen, followed in frequency by proximal portions of the extremities, buttocks and upper thigh, some times lipomas are found in face, hands, lower legs and feet [2]. This neoplasm rarely occurs in the parotid or para-parotid region [3] and according to several authors, lipomas account for less than 4.4% of the benign parotid gland tumours [4,5]. The preferred treatment is surgical excision and recurrence is approximately 5% [6]. Lipomas seem to arise from metaplastic transformation of fibroblasts to lipoblasts [7], but other theories have been proposed [8,9].

The aims of this report are to communicate a unique case of a recurrent giant lipoma arising from the subcutaneous tissue of the para-parotid area, to emphasize the importance to rule out the presence of liposarcomas from recurrent lipomas and to discuss its histogenesis.

Case Report

An obese, 42 year-old, male patient was reviewed in the Xochimilco Peripheral Clinic of the Facultad de Odontologia, UNAM. His main complaint was a one year duration subcutaneously located tumour in the left para-parotid area (Figure 1). It was an asymptomatic, soft, lobulated, movable and slow growing neoplasm which produced facial asymmetry. No other symptoms or signs of disease were found in the clinical history. An incisional biopsy was taken and a microscopic diagnosis of benign lipoma was rendered.

The patient was taken to the operating room, he was anesthetized with the regional technique and a careful dissection of the tumour was done. No parotid involvement was observed. At the end of the surgical procedure the surgical field appeared clean (Figure 2). Then, the wound was sutured and the patient discharged. The specimen was received in the laboratory immersed in neutral formalin solution. It measured approximately 9.5x10.9 cm weighing 25 gr (Figure 3). Microscopic review of the entire specimen showed the presence of a benign neoplasm composed by large fatty cells with unstained, abundant cytoplasm and a displaced nucleus, some times few collagen bundles and capillaries were found interspersed among the fatty cells (Figure 4), confirming the clinical diagnosis of benign lipoma. The patient was followed by approximately three months and he disappeared.

One year later, the patient attended the clinic with a slow growing, asymptomatic, recurrent tumour in the same area. He only was worry about the facial asymmetry. A wider surgical excision was done and the resected specimen was an oval, soft, yellow, well defined tumour, measuring 10.5x11.8 cm and weighting 25 g which was received in our laboratory immersed in buffered formalin. A clinical diagnosis of recurrent lipoma to rule out liposarcoma was rendered.

A careful microscopic review of the old slides and those from the new surgical specimen was done and confirmed the initial diagnosis of benign lipoma since no microscopic features of mitotic figures; pleomorphism or atypical cells were found. The patient is under close follow-up for the possibility to develop a new recurrence or development of a well differentiated liposarcoma.
liposarcoma. Five years after the second surgical excision, no clinical signs of recurrence exist.

Discussions and Conclusion

Lipomas of the para-parotid region are rare neoplasms and usually they measure few centimeters. Giant lipomas are common in the retroperitoneum and they are difficult to distinguish from well-differentiated liposarcoma [2]. The case presented here is unusual because despite its large size and early recurrence this case showed no microscopic features of atypia or cellular pleomorphism.

There is no consensus on the pathogenesis of the lipomas. In relation to the nature of this tumour, some authors believe that it is merely hypertrophied tissue and others consider it is a true neoplasm [1,7,8]. An interesting point of view was suggested proposing that obesity and local growth are responsible for the formation of the lipomas [1,8]. This theory is known as the “hypertrophy theory” and states that lipomas arise from pre-existing fatty tissue. When lipomas develop in areas that normally are devoid of fatty tissue, other possibilities should be considered. It has been proposed that these kind of neoplasms could arise from metaplastic transformation of connective tissue cells [7]. This proposal suggests that the precursors of neoplastic lipoblasts are fibroblasts. Also, it has been suggested that lipoblasts are not separate, unalterable cells, since fatty tissue can be formed by mutable connective tissue cells almost anywhere in the body [7], considering that lipomas may develop by an aberrant in situ differentiation of mesenchymal cells. According to this point of view, it was proposed that lipomas in the parotid region can develop from subcutaneous posterior extension of the buccal fat pad or as a result of developmentally displaced islands of lipoblasts [3]. Taking in count the above mentioned proposals and that because this tumor was located in the para-parotid area close to the parotid gland, we can reasonably assume that it could arise from fatty cells derived from the parotid capsule. According to the Nanavati and Nanavati [3] suggestion, it also could develop from subcutaneous posterior extension of the buccal fat pad or as a result of developmentally displaced islands of lipoblasts or as it was proposed previously [7], the possible precursor cells in this case were fibroblasts or mutable connective tissue cells transformed to lipoblasts.

Treatment of choice for lipomas from all locations is the surgical excision and usually enucleation of the tumour is satisfactory. Recurrence in lipomas is considered rare, some authors reported it was from 1% to 5% [2,6]. It is well known that surgical excision of large tumours is difficult and that their entire removal is sometimes complicated, for this reason, these cases encompass a higher potential for recurrence. In the case presented here, we made a careful dissection of the tumour and clinically the surgical field appeared clean. Unfortunately, the tumour recurred at a fast rate one year later after the first excision. We suggest that it is reasonable to think that some residual neoplastic cells remained in the surgical field.

Most lipomas are between 1.0 and 5.0 cm in greatest dimension [3]. Depending on location, they may reach enormous size and weight many kilograms [10,11]. The case presented here is unique since it reached more than 10 cm and according to our review of the literature, no other case located in the para-parotid region attaining this gigantic size has been previously reported.

It is important to mind that well differentiated liposarcomas can develop from recurrent lipomas [12]. Malignant change in lipomas is characterized by areas of lipoblastic proliferation, myxoid differentiation, cellular pleomorphism, with increased vascularity and mitosis [13]. Even rare, this malignant transformation should be discarded doing a careful review of a large number of slides from different parts of large specimens. Special care should be taken to rule out the presence of areas showing malignant changes when we reviewed microscopic slides from recurrent giant lipomas.

References

Illustrations

Illustration 1

Figure 1. Clinical picture showing a well-circumscribed tumoral growth in the left para-parotid area

Illustration 2

Figure 2. A clinically clean surgical field with no remnants of adipose tissue is shown in this photograph
Illustration 3

Figure 3. Macroscopic view of the excised tumor. Several pieces of well demarcated fatty tissue are seen.

Illustration 4

Figure 4. Photomicrograph illustrating the presence of a tumor composed by benign adipose cells with no evidence of atypia or malignancy. H&E. 200X.
Disclaimer

This article has been downloaded from WebmedCentral. With our unique author driven post publication peer review, contents posted on this web portal do not undergo any prepublication peer or editorial review. It is completely the responsibility of the authors to ensure not only scientific and ethical standards of the manuscript but also its grammatical accuracy. Authors must ensure that they obtain all the necessary permissions before submitting any information that requires obtaining a consent or approval from a third party. Authors should also ensure not to submit any information which they do not have the copyright of or of which they have transferred the copyrights to a third party.

Contents on WebmedCentral are purely for biomedical researchers and scientists. They are not meant to cater to the needs of an individual patient. The web portal or any content(s) therein is neither designed to support, nor replace, the relationship that exists between a patient/site visitor and his/her physician. Your use of the WebmedCentral site and its contents is entirely at your own risk. We do not take any responsibility for any harm that you may suffer or inflict on a third person by following the contents of this website.