

CASE REPORT

PEER REVIEWED | OPEN ACCESS

Large buccal fat pad lipoma: A rare case report

Bhavinder Kumar Arora

ABSTRACT

Introduction: Classical lipomas are common benign tumors but uncommon in oral and faciomaxillary region. **Buccal fat pad (BFP) lipomas are very rare. Case Report:** A 57-year-old woman developed a swelling of left cheek. **Ultrasound of cheek revealed buccal lipoma. Fine needle aspiration (FNA) diagnosed it as classic lipoma. Excision of BFP lipoma was done by intraoral route under local anesthesia. Conclusion:** Intraoral excision of BFP lipoma is east way for complete excision under local anesthesia.

Keywords: Bichat ball, Buccal fat pad, Facio-maxillary lipomas, Lipoma, Prolapse of fat

How to cite this article

Arora BK. Large buccal fat pad lipoma: A rare case report. Int J Case Rep Images 2019;10:101036Z01BA2019.

Article ID: 101036Z01BA2019

doi: 10.5348/101036Z01BA2019CR

Bhavinder Kumar Arora

Affiliation: MS FIAMS FAIS, Professor, Department of Surgery, Pt B D Sharma University of Health Sciences, PGIMS, Rohtak 124001, Haryana, India.

Corresponding Author: Bhavinder Kumar Arora, Professor, Department of Surgery, PGIMS, Rohtak 124001, Haryana, India; Email: drbhavinderarora@gmail.com

Received: 18 April 2019

Accepted: 26 June 2019

Published: 16 July 2019

INTRODUCTION

Lipomas are benign tumors of the adipose tissue and can occur anywhere in the body. They are the most common mesenchymal tumors occurring in head and neck. About 15–20% of all lipomas occur in head and neck region; 1–4% these lipomas occur in oral cavity [1]. Furlong et al. (2004) described clinicopathological features of 125 cases of oral and maxillofacial lipomas. Out of 125 patients, 30 were present in parotid region, 29 in buccal mucosa, 21 over lips, 17 in submandibular region, 15 over tongue, 6 over palate, 5 in floor of mouth, and 2 in buccal vestibule. On histopathological examination, 62 were classic lipomas, 59 were spindle cell, 2 were fibrolipomas, and 2 were chondroid lipomas [2]. The BFP of Bichat also known as Corpus Adiposum Buccae is present in cheek. Buccal fat pad is a pad of adipose tissue which is biconvex wedge shape between masseter muscle and buccinator muscle [3]. These BFP lipomas present as small soft swelling covered with oral mucosa in buccal sulcus. Most of these oral lipomas are small in size about 1–3 cm in size. The BFP lipomas are generally less than 3 cm in size. Rarely giant buccal lipoma of more than 3 cm size has been reported [4]. A study could find only 31 cases of BFP lipoma or Bichat ball in medical literature which indicates that this disease is rare and also underreported [5]. These large size BFP lipomas are visible on cheek as round swelling and are bimanually palpable. Buccal fat pad lipoma must be considered in the differential diagnosis of swellings of the cheek whether presenting as intraoral, extraoral, or both. Besides clinical diagnosis investigations are required to make anatomical diagnosis of BFP swelling by ultrasound or computed tomography (CT) scan and tissue diagnosis by FNA cytology [6]. Adequate surgical excision is the treatment of choice for BFP lipomas. The excision of BFP lipoma can be done by intraoral or extraoral route. A case of BFP lipoma under local anesthesia as day surgery procedure has been reported [7]. This case report of a large size BFP lipoma is presented for rarity of this pathological benign lesion and excision under local anesthesia by intraoral route.

CASE REPORT

A 57-year-old woman presented with swelling of left cheek for last two years. The patient noticed only

fullness which has been progressively increasing but slowly. The swelling was painless and patient was noticing accentuation of cheek. For last two months she was able to feel a small ball of swelling in the left cheek. There was no effect on chewing, also no hindrance to process of mastication and swallowing. Also, there were no otorhinolaryngological symptoms. There was no associated fever or loss of weight. There was no history of trauma over the cheek. There was no history of multiple swellings in any other part of body. On clinical examination, there was a spherical swelling of size of about 4 cm diameter. This swelling was non-tender, firm in consistency, and fairly smooth surface. Overlying intraoral mucosa was normal. The skin changes over the cheek were absent (Figures 1 and 2).

The swelling was freely mobile and not adherent to mucosa or skin. On auscultation, no bruit was audible. The differential diagnosis considered were lipoma, fibrolipoma, epidermoid cyst, and chronic buccal abscess. The ultrasound of cheek revealed a hypoechoic swelling of 4.5×2.6 cm with linear striations suggestive of lipoma. It was a well circumscribed swelling with no extensions. There were no lymph nodes in the neck. To get the tissue diagnosis, FNA was done which revealed mature adipose tissue in background of lipoproteinaceous material suggestive of lipoma. The hematological investigations like complete hemogram, bleeding and clotting time, blood urea, blood sugar, and serum electrolytes were normal. As the clinical evaluation, ultrasonography, and tissue diagnosis correlated well with final diagnosis of lipoma, further evaluation with CT scan was not done. Preanesthetic checkup was done and was fit for surgery (ASA grade I). She was advised excision under local anesthesia. Local anesthesia infiltration using injection lignocaine was given. No sedation was used. A linear incision about 4 cm was given in buccal sulcus over the mucosa covering the swelling. The swelling was dissected all around using blunt dissection and was carefully excised. The wound was packed with gauze to achieve hemostasis. The gauze was removed and wound was closed using 3-0 chromic catgut. The excised lipoma is shown in Figure 3. The histopathological examination revealed mature adipocytes containing clear cytoplasm and eccentric nuclei. No atypical cells were seen. The histopathology reported it consistent with classical lipoma (Figure 4).

The postoperative period was uneventful so patient was discharged after three hours. She was followed up on 3rd and 7th postoperative day. Long-term follow-up revealed no recurrence.

DISCUSSION

Lipomas are the common soft tissue tumors but are infrequent in oral cavity. Among all benign oral lesions, the incidence of lipomas is low. The BFP is present in the cheek and is a trigone-shaped pad of adipose tissue with



Figure 1: Buccal fat pad lipoma (AP view).



Figure 2: Buccal fat pad lipoma (lateral view).



Figure 3: Excised lipoma.

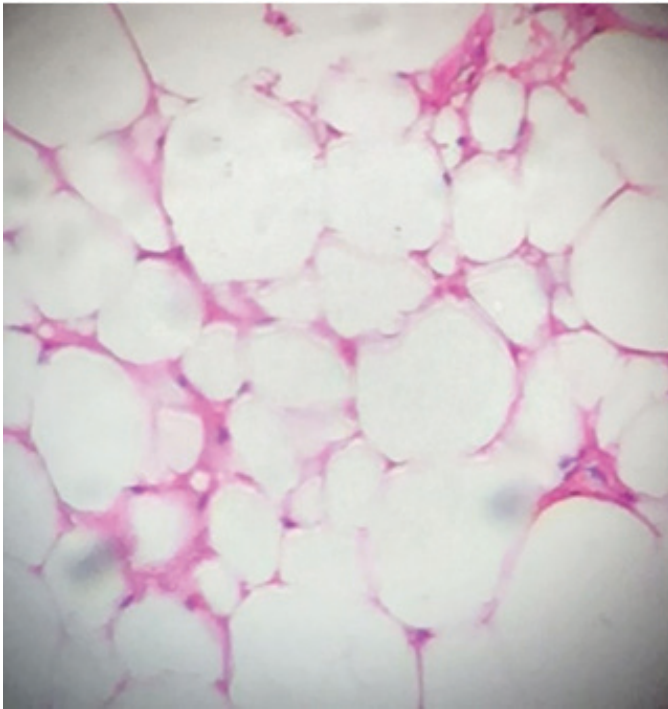


Figure 4: Microphotograph showing mature adipocytes.

many clinical functions. As it is a pad of adipose tissue it can develop neoplastic tumors. Lipoma is the most common adipose tissue tumor of benign nature which is likely to develop. These BFP lipomas generally acquire a size of 1.5–2.5 cm. The buccal lipomas having a maximum size of 5 cm have been reported [8]. There are so many studies describing the oral lipomas, their clinical location, and histopathological classification. These studies have reported sporadic cases of BFP lipomas. de Freitas et al. (2009) did analysis of clinical features and histopathology in 26 cases of oral lipomas. They described mean age of these patients was 54.6 years with range of 29–91 years occurring more common in females. The analysis of these 26 oral lipomas was buccal mucosa in 9 cases, tongue in 7 cases, lower lip in 4 cases, floor of mouth in 3 cases, retromolar area in 2 cases, and buccal sulcus in 1 case. The histopathological examination showed classic lipoma in 15 cases, fibrolipoma in 7 cases, intramuscular lipoma in 2 cases, spindle cell lipoma and sialolipoma 1 case each [9]. Another study by Manor et al. (2011) analyzed 58 cases of oral lipomas for clinical features, investigations, and management. Lipomas were present on buccal mucosa in 31 patients, tongue in 10 patients, on lips in 6 patients, floor of mouth in 6 patients, and vestibule in 5 patients. On histopathological basis, these lipomas were classified as classic lipoma in 28 cases, fibrolipoma in 19 cases, intramuscular lipoma in 4 cases, minor salivary gland lipoma in 2 cases, angiolipoma in 2 cases, and spindle cell lipoma in 3 cases [10].

The most common presentation of BFP lipoma was a circumscribed mass: asymptomatic, slow growing, and painless. They can present as swelling in oral cavity or

cheek. The functions of BFP are that these act as gliding pads during mastication and when mimetic muscles contract. The rupture of BFP capsule can lead to prolapse in oral cavity or subcutaneous tissue mimicking a lipoma. So, the prolapse of BFP should be considered in differential diagnosis of cheek lipoma [11]. Another theory of BFP lipoma is congenital origin. There are many publications available in medical literature related to BFP narrating its anatomy and clinical relevance. The lipoma of BFP is a pathological entity having its congenital origin described in one case report. In another case, recurrence was assigned to incomplete removal of extensions of the BFP lipoma [12]. However, exact cause of origin of BFP lipoma is not known. The accurate diagnosis of BFP lipoma can be done by investigations like ultrasound, CT scan, and MRI scan. The tissue diagnosis can be done by fine needle aspiration cytology. This accurate diagnosis of BFP lesions is essential and can be effective in treatment [13]. Excision is the treatment of choice. The BFP lipoma can be excised by extraoral or intraoral route. Trento et al. (2017) reported a case of BFP lipoma in right cheek. They described extraoral access for excision of superficial lipomas as the first option [14]. However, most of the studies describe intraoral approach is the best because of aesthetic reasons. Brucoli et al. (2011) reported a case of BFP lipoma and its surgical technique of transoral approach. They also discussed close relationship of BFP, facial buccal branches (FBB), and parotid duct [15]. Brucoli et al. (2011) classified FBB and BFP in two types [15].

FBB passing lateral to BFP.

1. Branches crossing inside BFP.

The anatomic variations of the parotid duct (PD) and BFP are divided into three types [15].

1. PD passing lateral to the BFP.
2. PD crossing deep to BFP.
3. PD running along superior border of BFP.

Coelho et al. (2018) have reported a huge cheek lipoma which was compromising facial aesthetics and treated by intraoral excision. They concluded that intraoral approach is a very simple technique and produces good aesthetic results [16]. Because of recurrence after excision of an extensive BFP lipoma, accurate anatomy must be determined and incomplete removal of the temporal extension of the BFP was assigned as cause of recurrence [17].

In this case report, the clinical diagnosis of BFP lipoma correlated well with the ultrasound scan and FNA cytology. The intraoral route was used for excision under local anesthesia as office-based surgery. The postoperative recovery was uneventful. The follow-up of six months had no recurrence.

CONCLUSION

This case report of a 57-year woman presenting with augmentation of left cheek was diagnosed as BFP lipoma.

Excision under local anesthesia by intraoral route was done as office-based surgical procedure. The intraoral route for excision of BFP lipoma gives easy access and good cosmetic results as it leaves no scar on face. Also, it can be done under local anesthesia. The benign nature of BFP lipoma is supported by its histopathology and no recurrence in follow-up.

REFERENCES

1. Trandafir D, Gogălniceanu D, Trandafir V, Căruntu ID. Lipomas of the oral cavity: A retrospective study. [Article in Romanian]. *Rev Med Chir Soc Med Nat Iasi* 2007;111(3):754–8.
2. Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma of the oral and maxillofacial region: Site and subclassification of 125 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2004;98(4):441–50.
3. Tostevin PM, Ellis H. The buccal pad of fat: A review. *Clin Anat* 1995;8(6):403–6.
4. Motagi A, Aminzadeh A, Razavi SM. Large oral lipoma: Case report and literature review in Iran. *Dent Res J (Isfahan)* 2012;9(3):350–2.
5. Chia CY, Rovaris DA, Fontana R. Giant lipoma of the buccal fat pad: Case report and literature review. *Brazilian J Plast Surg* 2016;31(1):1–3.
6. Phulari RG, Soni V, Talegaon TP, Bakutra G. Oral fibrolipoma: A report of two cases and review of literature. *Indian J Dent Res* 2018;29(4):513–6.
7. Mulchandani DV, Begani MM. DSC in India: Our Experience. *Day Surg J India* 2015;11(1):16–21.
8. Ponce JB, Ferreira GZ, Santos PS, Lara VS. Giant oral lipoma: A rare entity. *An Bras Dermatol* 2016;91(5 suppl 1):84–6.
9. de Freitas MA, Freitas VS, de Lima AA, Pereira FB Jr, dos Santos JN. Intraoral lipomas: A study of 26 cases in a Brazilian population. *Quintessence Int* 2009;40(1):79–85.
10. Manor E, Sion-Vardy N, Joshua BZ, Bodner L. Oral lipoma: Analysis of 58 new cases and review of the literature. *Ann Diagn Pathol* 2011;15(4):257–61.
11. Zhang HM, Yan YP, Qi KM, Wang JQ, Liu ZF. Anatomical structure of the buccal fat pad and its clinical adaptations. *Plast Reconstr Surg* 2002;109(7):2509–18.
12. de Wijn RS, van der Heijden EP, Kon M. On lipoma of the buccal fat pad: Report of two cases and review of the literature. *J Plast Reconstr Aesthet Surg* 2009;62(1):28–35.
13. Yousuf S, Tubbs RS, Wartmann CT, Kapos T, Cohen-Gadol AA, Loukas M. A review of the gross anatomy, functions, pathology, and clinical uses of the buccal fat pad. *Surg Radiol Anat* 2010;32(5):427–36.
14. Trento GDS, Stringhini DJ, Rebellato NLB, Scariot R. Extra-oral excision of a buccal fat pad lipoma. *J Craniofac Surg* 2017;28(3):e226–7.
15. Brucoli M, Arcuri F, Borello G, Benech A. Surgical technique of the transoral approach to remove a lipoma of the buccal fat pad. *J Craniofac Surg* 2011;22(6):2415–8.
16. Coelho RCP, Oliveira EM, Silva GCC, Aguiar EG, Moreira AN, Souza LN. Intraoral excision of a huge cheek lipoma. *J Craniofac Surg* 2018;29(1):e96–7.
17. Dubin B, Jackson IT, Halim A, Triplett WW, Ferreira M. Anatomy of the buccal fat pad and its clinical significance. *Plast Reconstr Surg* 1989;83(2):257–64.

Author Contributions

Bhavinder Kumar Arora – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None.

Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Author declares no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

Copyright

© 2019 Bhavinder Kumar Arora. This article is distributed under the terms of Creative Commons Attribution License which permits unrestricted use, distribution and reproduction in any medium provided the original author(s) and original publisher are properly credited. Please see the copyright policy on the journal website for more information.

Access full text article on
other devices



Access PDF of article on
other devices





INTERNATIONAL JOURNAL OF
CASE REPORTS AND IMAGES



VIDEO JOURNAL OF
CLINICAL RESEARCH



VIDEO JOURNAL OF
BIOMEDICAL SCIENCE



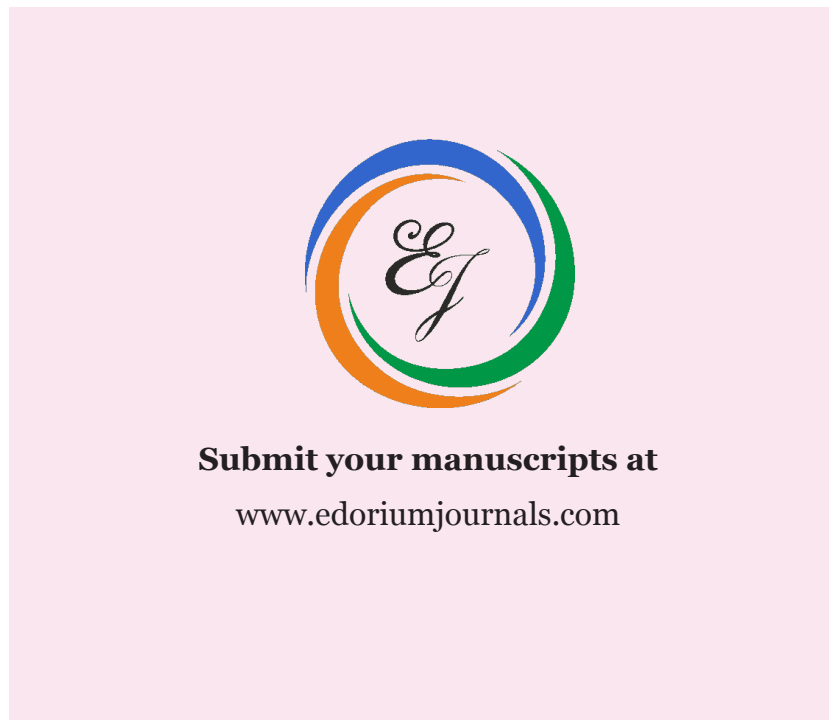
INTERNATIONAL JOURNAL OF
HEPATOBIILIARY AND
PANCREATIC DISEASES



INTERNATIONAL JOURNAL OF
BLOOD TRANSFUSION AND
IMMUNOHEMATOLOGY



EDORIUM JOURNAL OF
OPHTHALMOLOGY



EDORIUM JOURNAL OF
MEDICINE



EDORIUM JOURNAL OF
CARDIOTHORACIC AND
VASCULAR SURGERY



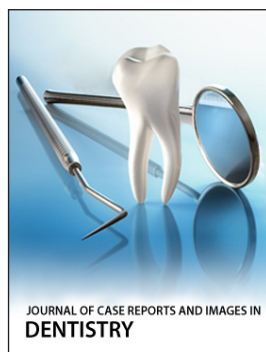
JOURNAL OF CASE REPORTS
AND IMAGES IN ORTHOPEDICS
AND RHEUMATOLOGY



EDORIUM JOURNAL OF
PSYCHOLOGY



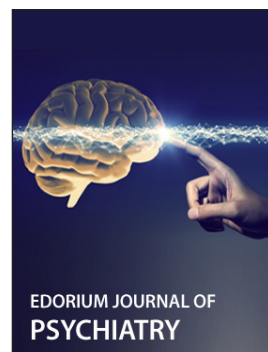
EDORIUM JOURNAL OF
CELL BIOLOGY



JOURNAL OF CASE REPORTS AND IMAGES IN
DENTISTRY



EDORIUM JOURNAL OF
CANCER



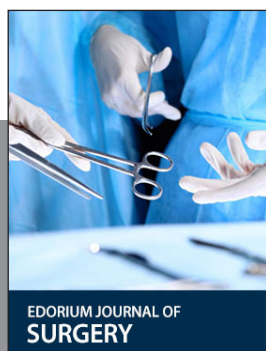
EDORIUM JOURNAL OF
PSYCHIATRY



JOURNAL OF CASE REPORTS AND
IMAGES IN INFECTIOUS DISEASES



EDORIUM JOURNAL OF
ANATOMY AND EMBRYOLOGY



EDORIUM JOURNAL OF
SURGERY



JOURNAL OF CASE REPORTS
AND IMAGES IN PATHOLOGY



EDORIUM JOURNAL OF
ANESTHESIA