MASSIVE LIPOMA OF THE ORAL CAVITY: A CASE REPORT

Data de submissão: 25/03/2024 *Data de aceite: 02/05/2024*

Brenda Lopes Camargo
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/4268916377004612

Sarah de Souza Santana
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/5356168228264589

Laura Heloísa Soares de Alencar
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/4067613218047533

Rosenalva Alves Barbosa
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/2318847351942944

Juliana dos Santos Rosa Rodrigues
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/1922617490736991

Brenda Lorrany de Sousa Santos
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/3606302998922845

Larissa Kelly Rodrigues Lopes
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
https://lattes.cnpq.br/5524434883884608

Déborah Pereira dos Santos
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/1178071615706844

Ellen Vitória Borges da Mata
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
http://lattes.cnpq.br/2955777246107101

Brenda Jordana Marçal Silva
Graduanda FAA Faculdade Anhanguera de Anápolis – Anápolis, GO
https://lattes.cnpq.br/5840094892244838

Germano Angarani
Especialista em Cirurgia e Traumatologia Buco-Maxilo-Facial, mestrado em odontologia- UFG
Universidade Federal do Goiás – Goiânia, GO
https://lattes.cnpq.br/0000-00030507-589X

ABSTRACT: Lipomas of the oral cavity are rare – especially with large dimensions. Clinically, this entity develops asymptomatically and slowly. Most of the patients affected by lipomas are diagnosed above the age of 60. The radiographic and histological aspects of the lipoma may be

similar to many other lesions. Thus, the combination of diagnostic evidences is essential towards more successful treatment outcomes. This study aims to report a case of massive lipoma in the mandible. A 70-year-old male patient was referred to maxillofacial surgery with an asymptomatic edema in the left side of the mandible. The patient complained of difficulties for eating and speaking. In a multidisciplinary approach, clinical, radiographic (computed tomography) and histopathological evidences were collected to reach the diagnosis of lipoma. Surgical enucleation was performed under local anesthesia. Within 1-year- follow-up the patient did not report functional or sensitive deficits. Dentists must be aware of the occurrence of unusual massive lesions in the oral cavity. In parallel, patients must understand the importance of seeking for treatment in early stages of the disease to avoid more invasive surgeries and worse prognoses.
KEYWORDS: lipoma; oral surgery; oral medicine

ENORME LIPOMA DA CAVIDADE ORAL: UM RELATO DE CASO

RESUMO: Os lipomas da cavidade oral são raros - especialmente com grandes dimensões. Clinicamente, essa entidade se desenvolve de forma assintomática e gradual. A maioria dos pacientes afetados por lipomas é diagnosticada acima dos 60 anos de idade. Os aspectos radiográficos e histológicos do lipoma podem ser semelhantes a muitas outras lesões. Assim, a combinação de evidências diagnósticas é essencial para resultados de tratamento mais bem-sucedidos. Este estudo tem como objetivo relatar um caso de lipoma maciço na mandíbula. Um paciente do sexo masculino, de 70 anos de idade, foi encaminhado para cirurgia bucomaxilofacial com um edema assintomático no lado esquerdo da mandíbula. O paciente relatou dificuldades para comer e falar. Em uma abordagem multidisciplinar, foram coletadas evidências clínicas, radiográficas (tomografia computadorizada) e histopatológicas para alcançar o diagnóstico de lipoma. A enucleação cirúrgica foi realizada sob anestesia local. No acompanhamento de 1 ano, o paciente não relatou déficits funcionais ou sensitivos. Os dentistas devem estar cientes da ocorrência de lesões maciças incomuns na cavidade oral. Paralelamente, os pacientes devem entender a importância de buscar tratamento nos estágios iniciais da doença para evitar cirurgias mais invasivas e piores prognósticos.
PALAVRAS-CHAVE: lipoma; cirurgia bucal; medicina bucal

INTRODUCTION

Lipomas are mesenchymal neoplasms composed of mature adipocytes usually coated with a fibrous membrane.[1] This entity may be common in the trunk, shoulder and armpit. [2,3,4] In the head and neck, lipomas may reach a prevalence rate of 20%, [2,3] while in the oral cavity it represents 0.1-5% of all the benign tumors.[2-6] The oral mucosa is the most affected tissue followed by the tongue, lips and gingiva.[2-6] This study was designed to report and discuss the clinical relevance of a massive lipoma diagnosed in the oral cavity.

CASE REPORT

A 70-year-old male patient was referred to a local service of Maxillofacial Surgery presenting an asymptomatic swelling in the anterior region of the mandible (Figure 1).

The patient was referred after initial appointment with a general dentist complaining of a maladaptive complete removable prosthesis in the mandible.

During the anamnesis, the patient reported that the lesion developed during 17 years. Smoking habit for 50 years and hypertension were also reported. The extra- and intraoral exams indicated a normochromatic lesion in the left side of the mandible with internal projection to the vestibulum (Figure 2). The lesion was mobile and smooth upon palpation. Computed tomography scans showed a hypodense image in the mandible measuring 56.8mm (length) x 27.8mm (width) x 26mm (height). The images also showed the lesion epicenter in soft tissue and a regular and smooth surface resorption of the buccal plate of the mandible. Based on the tomographic aspects of the lesion (Figure 3), a diagnostic hypothesis of lipoma was considered and an excisional biopsy was planned.

The biopsy was performed under local anesthesia and using Lidocaine 2% with epinephrine 1:100.000. An intraoral linear incision of 5cm was performed in the mucosa of the vestibulum followed by divulsion with Metzenbaum scissors. An adipose yellowish lesion of 5 cm was accessed and enucleated (Figures 4 and 5). After removal, the lesion was kept floating in formaldehyde 10% (Figure 6). Polyglactin 910 (vicryl) 4-0 and silk 4-0 were used in the suture of the deep tissue and superficial mucosa of the surgical site (Figures 7 and 8), respectively. Nimesulide® 100mg every 12 hours for 3 days and Lisador® every 6 hours for 2 days were prescribed after the surgery. Postoperative hygiene care was described to the patient.

The histopathological exam revealed a dense connective tissue with peripheral nuclei and fat particles in polyhedral cells (Figure 9). The clinical, radiographic and histopathological characteristics of the lesion confirmed the diagnosis of lipoma. No facial asymmetry or functional/sensitive deficits were detected within one year of clinical follow-up (Figures 10 and 11).

DISCUSSION

Lipomas are mesenchymal tumors with a prevalence that ranges between 15-20%. In the oral cavity, lipomas are rare.[1,3,4,6-8] Oral mucosa, tongue, palate and lips are the intraoral regions more affected by lipomas.[3-6,9,11] The scientific literature is controversial regarding the occurrence and distribution of lipomas among males and females.[8-11] Similarly, lipomas are not associated with specific ethnic groups. In most of the cases, the lipomas are diagnosed in patients older than 60 years.[4,6] Children are rarely affected. The occurrence of multiple lipomas may be related to Cowden's syndrome.[10]

The etiology behind the lipomas is uncertain and supported by many factors, such as genetic hereditary aspects, infections, persisting embryologic adipose cells, chronic trauma, metaplastic muscle cells, fat degeneration and chromosomal abnormalities.[1,2,6-9] Clinically, lipomas develop slowly into well-defined, asymptomatic and mobile tumors that may hamper on eating and speaking fuctions.[5,6,9] The differential diagnosis may include the thyroglossal duct cyst, the pleomorphic adenoma, schwannoma, myxoid neurofibroma, leiomyoma, the mucoepidermoid carcinoma, the lymphoepithelial cyst and the dermoid cyst.[1-4, 12]

Detecting superficial lipomas is not a complex task because the yellowish aspect of the tumor may be visible underneath the oral mucosa. On the other hand, deep tumors may be detected only with imaging exams. In computed tomography images, the lipomas have density (Hounsfield Unit, HU) values (nearly -100 HU) similar to other head and neck fat tissues.[9]

Histologically, the lipomas have an arrangement similar to other fat tissues – with adipose cells in a lobular pattern and eventually a thin fibrous capsule. The inherent microscopic variations include the fibrolipoma, angiolipoma, myxoid lipoma, pleomorphic lipoma and the intramuscular lipoma (infiltrative deep lesion in the muscle without capsule).[2,6,9,13,14] Lipomas and fibrolipomas figure as the most prevalent.[9]

Lipomas are usually treated with surgical excision when they interfere in daily activities, such as eating and speaking, or in social communication (especially by decreasing aesthetics).[2,5,6,7,13-16] Some authors recommend surgical excisions with safety margins.[14] In general, lipomas have a good prognosis. However, the infiltrative type may have high recurrence due to a more aggressive manifestation.[1,6,13-16]

The present case differs from most of the previous cases reported in the scientific literature given that the reason for the patient to search for treatment was a unstable denture in the mandible. Loose or unstable dentures may cause long-term low-intensity trauma in the adjacent soft tissue. The chronic pressure of the denture on the lesion, and the resulting pressure of the lesion on the bone, may have induced bone remodeling/resorption in the facial cortex of the mandible. This type of bone response can be detected in CT images.

The case reported in this study highlights the need for major attention to clinical complaints that are not necessarily related to specific soft tissue lesions. Oral imaging figures as an optimal tool for detecting asymptomatic conditions that expand silently and massively in the patient. Exploring the anamnesis, the extra- and intro-oral physical exams and the radiographic exams is the optimal clinical approach to accurate diagnosing and managing lipomas in the oral cavity.

CONCLUSION

- Lipomas of the oral cavity are rare and affect mostly the oral mucosa;
- This study reports a rare and massive lipoma in the oral cavity;
- The diagnostic characteristics of the lipoma may be retrieved from clinical, radiographic and histopathological exams.

REFERENCES

1. Kiran AR, Naik NP, Samantha Y *et al*. Intraoral lipoma: a rare case report and review of literature. *J Clin Diagn Res* 2013;7:3090-1.

2. Bakshi SS, Priya M, Coumare VN *et al*. A common tumor in an uncommon location: lipoma of the palate. *Ann Maxillofac Surg* 2015;5:237-9.

3. Ponce JB, Ferreira GZ, Santos PSS *et al*.Giant oral lipoma: a rare entity. An Bras Dermatol 2016;91:84-6.

4. Al Sheddi MA, Assari A, Mosadomi H. Spindle cell lipoma of the mandibular mucogingival junction: a case report of unusual oral neoplasm. *Int J Oral Sci* 2014;6:185- 187.

5. Loin J, Paré A, Veyssiére A *et al*. A rare location for a common tumor: lingual lipoma. *J Stomatol Oral Maxillofac Surg* 2018;119:236-7.

6. Aita TG, Bonardi JP, Stabile GAV *et al*. Lipoma on the lower lip. *J Craniofac Surg* 2017;28:750-1.

7. Naruse T, Yanamoto S, Yamada S *et al*. Lipomas of the oral cavity: clinicopathological and immunohistochemical study of 24 cases and review of the literature. *Indian J Otolaryngol Head Neck Surg* 2015;67:67-73.

8. Coelho RCP, Oliveira EM, Silva GCC *et al*. Intraoral excision of a huge cheek lipoma. *J Craniofac Surg* 2018;29:96-7.

9. Mehendirratta M, Jain K, Kumra M *et al*. Lipoma of mandibular buccal vestibule: a case with histopathological literature review. *BMJ Case Report* 2016;doi:10.1136/bcr- 2016-215586

10. Taira Y, Yasukawa K, Yamamori I *et al*. Oral lipoma extending superiorly from mandibular gingivobuccal fold to gingiva: a case report and analysis of 207 patients with oral lipoma in Japan. *Odontology* 2012;100:104-8.

11. Venkateswarlu M, Paramkusam G, Srikanth M. A rare case of intraoral lipoma in a six year-old child: a case report. Int J Oral Sci 2011;3:43-46.

12. Studart-Soares EC, Cost FWG, Sousa FB et al. Oral lipomas in a Brazilian population: A 10-year study and analysis of 450 cases reported in the literature. *Med Oral Patol Oral Cir Bucal* 2010;15:691-6.

13. Fregnani ER, Pires FR, Falzoni R *et al*. Lipomas of the oral cavity: clinical findings, histological classification and proliferative activity of 46 cases. *Int J Oral Maxillofac Surg* 2003;32:49-53.

14. Wu YH, Lin PY, Chang MH *et al*. Lipoma of the tongue. *J Formos Med Assoc* 2017;116:1006-7.

15. Trento GDS, Stringhini DJ, Rebellato NLB *et al*. Extra-oral excision of a buccal fat pad lipoma. *J Craniofac Surg* 2017;28:226-7.

16. Moore PL, Goede A, Phillips DE *et al*. Atypical lipoma of the tongue. *J Laryngol Otol* 2001;115:859-61.

LEGENDS OF FIGURES

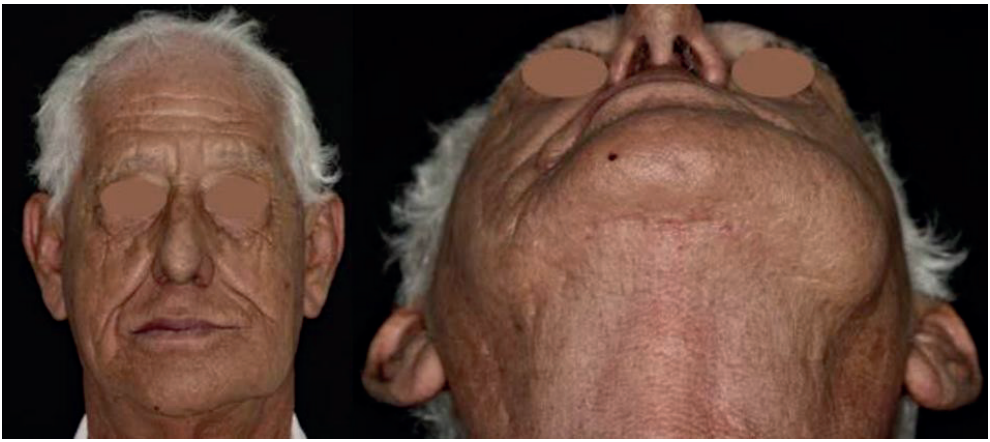

Figure 1 – Frontal and inferior view of the patient with asymmetry due to an edema in the left side of the mandible

Figure 2 – Intraoral view showing an edema in the vestibulum of the left side of the mandible

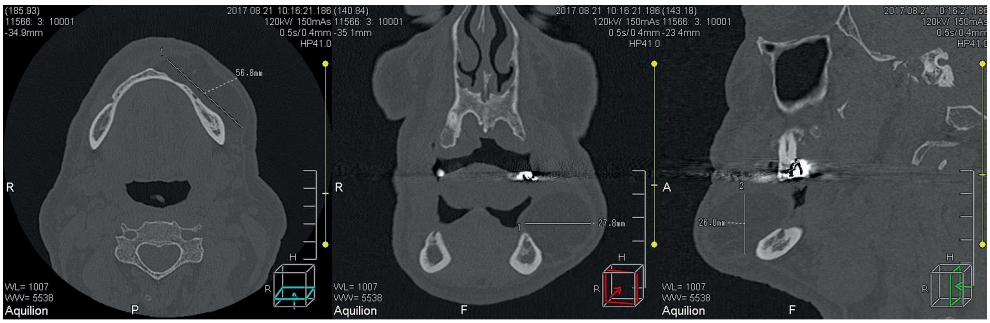

Figure 3 – Computed tomography images showing a hypodense image in the mandible measuring 56.8mm (length) x 27.8mm (width) x 26mm (height). Upper images: hard tissue window. Lower images: soft tissue window. From the left to the right: axial, coronal and sagittal views.

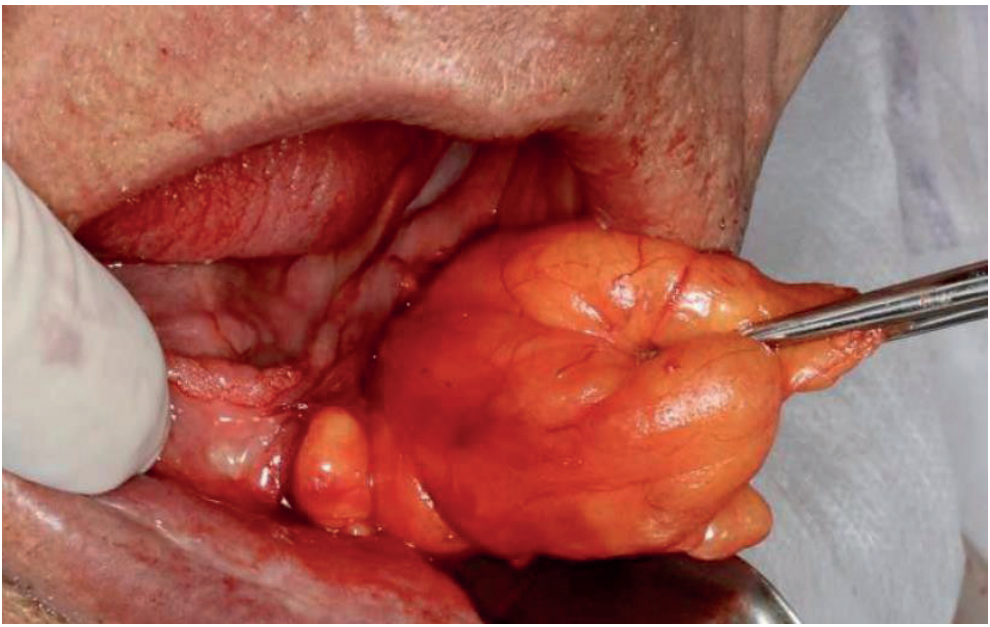

Figure 4 – Transoperative aspect of the yellowish lesion in the oral cavity

Figure 5 – Macroscopic aspect of the lesion enucleated from the mandible

Figure 6 – Lesion floating in formaldehyde 10%

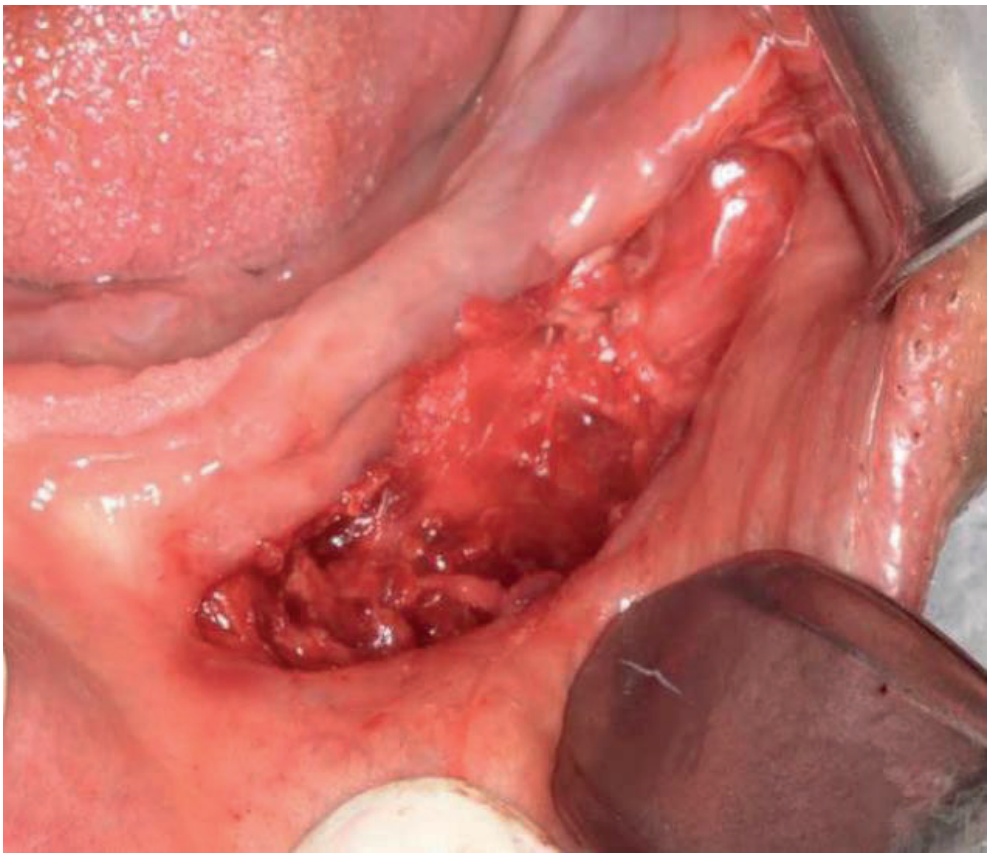

Figure 7 – Transoperative aspect of the surgical site after enucleation of the lesion

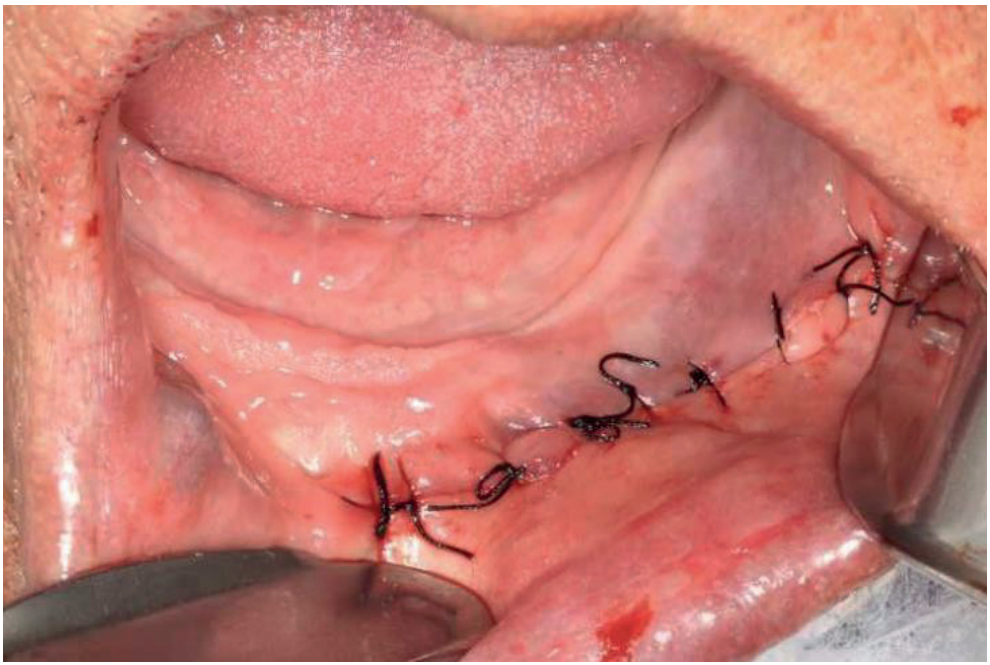

Figure 8 – Transoperative aspect of the surgical site after suture

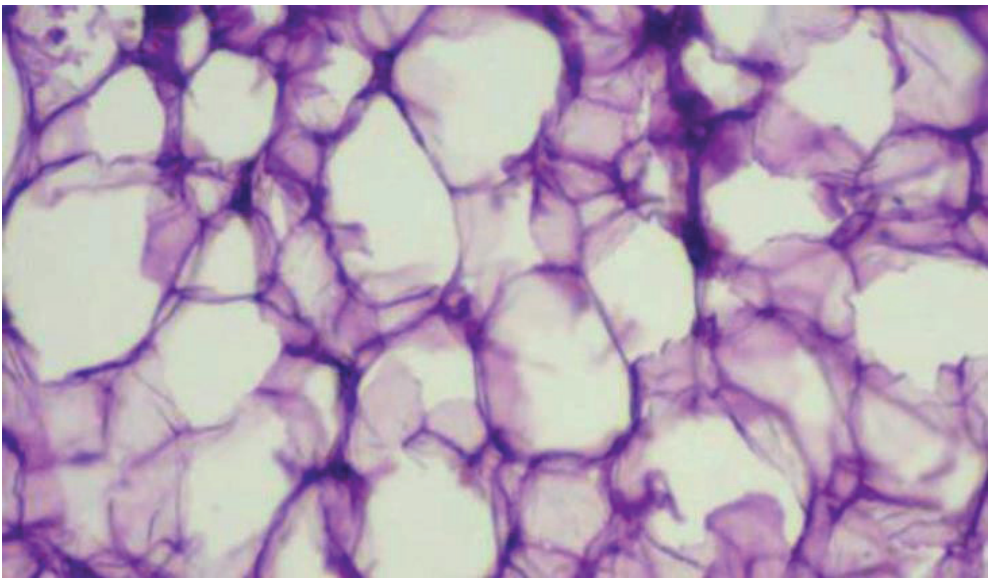

Figure 9 – Histopathological aspect of the lesion showing a dense connective tissue with peripheral nuclei and fat particles in polyhedral cells

Figure 10 – Intraoral view of the mandible within 1-year follow-up

Figure 11 – Extraoral view of the patient within 1-year follow-up