Pleomorphic adenoma located in the upper lip: clinical case report

Adenoma pleomórfico localizado no lábio superior: relato de caso clínico

Rebeca Pires dos Santos Amaral
Graduating in Dentistry
Institution: Faculdade Unilagos
Address: R. Baster Pilar, 500, Parque Hotel, Araruama - RJ, CEP: 28981-402
E-mail: rebeca_pds@hotmail.com

Lais dos Santos Castilho
Graduating in Dentistry
Institution: Faculdade Unilagos
Address: R. Baster Pilar, 500, Parque Hotel, Araruama - RJ, CEP: 28981-402
E-mail: lais.scastilho@gmail.com

Amanda da Silva Carvalho
Graduating in Dentistry
Institution: Faculdade Unilagos
Address: R. Baster Pilar, 500, Parque Hotel, Araruama - RJ, CEP: 28981-402
E-mail: dinhha.carvalho@gmail.com

Lavínia Queiroz Cabral
Graduating in Dentistry
Institution: Faculdade Unilagos
Address: R. Baster Pilar, 500, Parque Hotel, Araruama - RJ, CEP: 28981-402
E-mail: laviniaocabral60@gmail.com

Ingrid Rhayanne Marques de Sa
Postgraduate in Oral and Maxillofacial Surgery and Traumatology
Institution: Associação Brasileira de Odontologia Regional Campos dos Goytacazes, Faculdade de Odontologia - Campos dos Goytacazes
Address: R. Cora de Alvarenga, 210, Parque Leopoldina - RJ, CEP: 28053-227
E-mail: ingridrhayanne@outlook.com

Gabriel Sardinha Estrella
Specialist in Oral and Maxillofacial Surgery and Traumatology
Institution: Associação Brasileira de Odontologia Regional Campos dos Goytacazes, Faculdade de Odontologia - Campos dos Goytacazes
Address: R. Cora de Alvarenga, 210, Parque Leopoldina - RJ, CEP: 28053-227
E-mail: gabrielsardinha.bmf@hotmail.com
**Patrícia Siqueira da Silva Barcellos**  
Master's student in Oral and Maxillofacial Surgery and Traumatology  
Institution: Associação Brasileira de Odontologia Regional Campos dos Goytacazes, Faculdade de Odontologia - Campos dos Goytacazes  
Address: R. Cora de Alvarenga, 210, Parque Leopoldina - RJ, CEP: 28053-227  
E-mail: patriciasiqueira@hotmail.com

**Victor Paes Dias Gonçalves**  
Master in Implantology in Oral and Maxillofacial Surgery and Traumatology  
Institution: Associação Brasileira de Odontologia Regional Campos dos Goytacazes, Faculdade de Odontologia - Campos dos Goytacazes  
Address: R. Cora de Alvarenga, 210, Parque Leopoldina - RJ, CEP: 28053-227  
E-mail: victor_paesdias@yahoo.com.br

**ABSTRACT**  
The pleomorphic adenoma is the most common benign neoplasm of the salivary glands, they can be larger or smaller, therefore, when its occurrence is in the smaller ones, the palate is the most affected site of the pathology. This article aims to carry out a descriptive case study of a patient with a diagnosis of Pleomorphic Adenoma located in the upper lip. A 55-year-old male patient, leucoderma, attended the Brazilian Dental Association (ABO/RJ - Campos dos Goytacazes) in 2022 in the course of Minor Oral Surgery. During the anamnesis, the patient mentioned the appearance of a slow-growing lesion in the upper left lip region during the COVID-19 pandemic. We conclude from this case study that the early diagnosis and treatment of any change in the oral cavity is of paramount importance. For pleomorphic adenoma, total excision of the lesion is the most indicated treatment.

**Keywords:** salivary gland neoplasms, pleomorphic adenoma, parotid gland.

**RESUMO**  
O adenoma pleomórfico é a neoplasia benigna mais comum das glândulas salivares, elas podem ser maiores ou menores, portanto, quando sua ocorrência é nas menores, o palato é o local mais afetado da patologia. Este artigo tem como objetivo realizar um estudo de caso descritivo de um paciente com diagnóstico de Adenoma Pleomórfico localizado no lábio superior. Um paciente de 55 anos do sexo masculino, leucoderma, participou da Associação Brasileira de Odontologia (ABO/RJ - Campos dos Goytacazes) em 2022 no curso de Cirurgia Oral Menor. Durante a anamnese, o paciente mencionou o aparecimento de uma lesão de crescimento lento na região do lábio superior esquerdo durante a pandemia da Covid-19. Concluímos deste estudo de caso que o diagnóstico precoce e o tratamento de qualquer alteração na cavidade oral é de suma importância. Para o adenoma pleomórfico, a excisão total da lesão é o tratamento mais indicado.

**Palavras-chave:** neoplasias da glândula salivar, adenoma pleomórfico, glândula parótida.
1 INTRODUCTION

The success of the treatment plan and accurate diagnoses directly depend on a complete clinical examination (anamnesis and physical examination). A well-performed Clinical Examination needs to be performed completely by the Dental Surgeon. In the anamnesis, the CD must identify the patient; write down the main complaint and how long ago it appeared, in addition to writing down the history of the current illness and checking hereditary background. (Thompson 2023).

The Physical Examination is the moment when the DS must inspect not only the teeth and the oral cavity, looking for abnormalities both in the face, as well as in the mucosa and teeth; perform palpation on structures (extra and intraoral); perform percussion on dental elements, the professional must be aware of any and all types of abnormalities in order to obtain an effective diagnosis of any pathology found (Thompson 2023).

The region of salivary glands are entities separate from the salivary cells, and exist in large numbers in the intraoral cavity, most commonly in the hard and soft palate. They generate about 10% of the total salivary secretion of the oral cavity per day. Most minor salivary gland lesions are malignant, but benign lesions can still appear (Gelidan and Arab 2021).

Pleomorphic adenoma is the most common salivary gland lesion, being derived from a mixture of gland epithelium and myoepithelial cells (Neville 2016). The tumor shows a slight predilection for females and affects patients mostly between 30 and 60 years. It mostly affects the parotid gland, followed by the minor salivary glands and the submandibular gland. Among the minor glands, the most common location is the palate, followed by the upper lip and buccal mucosa (Baskaradass and Upret 2023).

Clinically, the lesion appears as an asymptomatic slow-growing volume increase that can present different morphologies, making diagnosis difficult, requiring histopathological examination. (Yuanyuan et al. 2021). Authors state that AP has pathognomonic histopathological characteristics because a single cell differentiates between epithelial and myoepithelial cells, this tumor has three components: an epithelial component, a myoepithelial cell component and a
mesenchymal component (Almeslet 2020; Miura et al, 2023). These three components vary in morphology justifying the pleomorphic name.

Early diagnosis of Pleomorphic adenoma is important for successful treatment, which consists of removing the lesion and forwarding it for histopathological examination. This article aims to carry out a descriptive case study of a patient with a diagnosis of Pleomorphic Adenoma located in the upper lip.

2 MATERIAL AND METHODS

This work is a single case study, as it intends to report a clinical case of pleomorphic adenoma. Being treated in a qualitative study, verifying and enabling the resolution of the problems requested by the patient for the therapeutic conduct and its prognosis. Authors claim that a case study is a type of research focused on a phenomenon which is described in as much depth as possible for the moment (Pereira et al. 2018). This study was carried out through a careful anamnesis where the patient (C.M.B), 55 years old, male. The patient attended the Brazilian Dental Association (ABO/RJ - Campos dos Goytacazes) in 2022 in the course of Minor Oral Surgery. During the anamnesis, the patient reported the appearance of a slow-growing lesion in the region of the upper left lip (Figure 1). Patient reported that the lesion initially appeared in December 2019, at the beginning of the appearance he was not bothered, however, during the COVID-19 pandemic, he began to feel growth and discomfort during feeding, but afraid to go to the DS during pandemic was reluctant, until a family member convinced her to go to this appointment to seek an explanation. The patient was in good health, classified as ASA I (American Society of Anesthesiologists) risk category.

The examined patient signed the Free and Informed Consent Form (TCLE), authorizing the recording of photographs and analyzes of the medical records, whose ethical principles are in accordance with the international guidelines provided for in the Declaration of Helsinki. Associating this case study, a literary research was carried out in databases such as Pubmed, BVS and
CAPES, performing an analysis on the articles that were linked to the study theme, helping during the procedure.

3 RESULTS

During extraoral physical examination, no facial asymmetry or any alteration of the pattern was identified. In the intraoral clinical examination, alteration was observed in the region of the upper left lip. On palpation, a region with a nodular aspect was noticed, with an expansion of 1.5 cm of sessile base, smooth, painless and mobile surface. In the panoramic radiographic examination, no alterations were observed. Based on the data obtained in the clinical examination, a diagnostic hypothesis of lipoma was taken.

Under a clinical environment, an excisional biopsy was performed. The patient was instructed to undergo a preoperative medication protocol of 2 amoxicillin tablets of 500 mg 1 hour before and 2 dexamethasone tablets of 4 mg 1 hour before (Gonçalves et al. 2022; Martareli et al. 2022). The infraorbital nerve and posterosuperior alveolar nerve were anesthetized with 2% Lidocaine with 1:100,000 epinephrine. Afterwards, an incision was made with a 15 blade, followed by divulsion by planes. The lesion was dissected along its entire length and completely removed (Figure 2). The surgical specimen was placed in a 10% formalin solution and sent for histopathological examination (Figure 3). Then, the surgical wound was cleaned with 0.9% saline solution, followed by layer synthesis using 4-0 nylon (Figure 4).

The patient was medicated with 10 mg of ketorolac trometamol for immediate analgesia and maintenance every 6 hours for 2 days. There were no immediate or late postoperative complications. The removal of the synthesis was performed after 15 days. The case was followed up for 12 months, with no evidence of recurrence.

On macroscopic examination, it consisted of a fragment with a nodular aspect, measuring 1.5 x 1.3 x 0.5cm, consisting of whitish tissue and elastic consistency. The histological sections show a neoplasm consisting of ductal structures covered by a double layer of cells and myxochondroid stroma. Note
the rhyme of the salivary gland without histological particularities. Diagnosis of pleomorphic adenoma, well-delimited lesion with expansive border measuring 1.5cm and surgical margins free of neoplasia (Figure 5).

Figure 1. Pre-Operative Image

Source: Authors

Figure 2. Transoperative Imaging

Source: Authors
4 DISCUSSION

Pleomorphic adenoma may undergo malignant transformation to leomorphic adenoma or to metastasize without malignant transformation (Knight
and Ratnasingham 2015). Metastatic pleomorphic adenoma (MPA) is a rare malignant tumor that histologically is indistinguishable from PA but produces secondary tumors at distant sites (dos Santos et al 2016). Therefore, early diagnosis and treatment of this anatomy is essential.

The World Health Organization (WHO) at the end of 2019 became aware of the new strain of the virus called 2019-nCoV, which causes an acute respiratory crisis in individuals and scared people in many countries around the world. Such a virus is acquired through inhalation or contact with saliva. Following this fact, the dental surgeon (CD) who works directly with this and his day to day work produces several contaminated particles that are capable of penetrating and infecting the entire environment and human beings. Since going to the dental office could be this place prone to the virus, so at the time it was recommended that the DS perform urgent and emergency care and acquire preventive measures in order to reduce the risk of infection (Baldan et al. 2021). As a result, patients began to avoid consultations and, as a consequence, oral health was affected in several aspects, mainly in the early diagnosis of pathologies, such as the case in question, where the patient took about 2 years to seek the specialized service.

Pleomorphic adenoma tends to appear in people between 30 and 50 years old, it is more common in females, it has slow and asymptomatic growth, which can cause the patient to take a long time to feel the first signs and symptoms of the pathology (De Sousa et al. 2019). Authors claim that Pleomorphic adenoma can develop in unusual intraoral locations. As well as the location found in the patient, which commonly has the highest incidence of Lipoma diagnoses(Yuanyuan et al. 2021).

The treatment for pleomorphic adenoma consists of a surgical incision with very wide margins so that the lesion is completely removed, while preserving the adjacent structures (Knight, Ratnasingham, 2015). It is important that the entire lesion is removed, and the surgery must be very well performed because if errors are made, the tumor may recur due to the remnants of the capsule and the lesion itself that remain (Mourouzis et al. 2023), (Almeslet 2020).
The histopathology is of paramount importance to detect possible alterations or lesions in a certain area of the body, so that it is possible to know the origin, level of severity, size and the degree of extension that some type of pathology presents. (Kim et al. 2023). In the case of the patient, an excisional biopsy was performed, the material was received in formalin and consists of a fragment with a nodular appearance measuring 1.5 x 1.3 x 0.5 cm, consisting of whitish tissue with an elastic consistency. It is noteworthy that all material was submitted to the histopathological process.

Microscopy is where it becomes possible to observe that the pleomorphic adenoma can have several variations in different areas of the lesion, containing in its composition several epithelial and myoepithelial cells, still having a stromal background in most cases. (De Souza et al. 2019). In the histopathology of the case, it was reported that the histological sections showed a neoplasm consisting of ductal structures covered by a double cell layer and the myxochondroid stroma. In the remainder, a rhyme of the salivary gland was observed without histological particularities.

The diagnosis was pleomorphic adenoma, the lesion was well delimited with expansive borders measuring 1.5 cm, the surgical margins are free of neoplasia, after the laboratory evaluation, a benign tumor was diagnosed, through this result the follow-up of the case every 6 months to evaluate possible recurrences.

5 CONCLUSIONS

We conclude from this case study that the early diagnosis and treatment of any change in the oral cavity is of paramount importance. For Pleomorphic adenoma, total excision of the lesion is the most indicated tratamiento.
REFERENCES


GELIDAN AG, Arab K. Rare upper lip pleomorphic adenoma presents as cutaneous skin lesion: Case report. International Journal of Surgery Case Reports. 2021;85:106142.


PEREIRA A. S. et al., 2018. Metodologia da pesquisa científica. Santa Maria/RS. Ed. UAB/NTE/UFSM.