

## **Pleomorphic Adenoma of the Palate: A Case series**

### **Damak Pleomorfik Adenomu: Vaka Serisi**

Mohammad ALNASRALLAH<sup>1</sup>, Yusuf Rodi MIZRAK<sup>1</sup>, Abdalrahim HUSSEIN<sup>1</sup>, Basem ALSHUJAA<sup>2</sup>, Serap Keskin TUNÇ<sup>1</sup>

<sup>1</sup>*Department of Maxillofacial and Dental Surgery, Faculty of Dentistry, Van Yuzuncu Yil University, Turkey*

<sup>2</sup>*Department of Periodontology, Faculty of Dentistry, Van Yuzuncu Yil University, Turkey.*

**ABSTRACT:** Pleomorphic adenoma is among the most fascinating benign tumors that may be seen in the head and neck area. The majority of it comes from the primary salivary glands. It is responsible for 70% of all neoplasms of the parotid gland. It is quite seldom detected in the minor salivary glands. It is more prevalent in females than in males. Females in their third to sixth decades had an increased risk of cancer. The tumor is typically observed as a slow-growing and asymptomatic enlargement. The process of surgical enucleation is applied in its therapy. When sufficient surgical excision and enucleation are done successfully, the incidence of recurrence and malignant tumor change is minimal. Pleomorphic adenoma that has been resected with adequate therapy has a typically favorable prognosis.

**Keywords:** Minor salivary gland tumor, pleomorphic adenoma, oral lesion

**ÖZET:** Pleomorfik adenom, baş boyun bölgesinde rastlanan en ilginç benign tümörlerden biridir. Çoğunlukla major tükürük bezlerinden kaynaklanır. Parotis bezindeki tüm neoplazmaların %70'inden sorumludur. Nadir olarak minortükürük bezlerinde de gözlemlenmektedir. Görülme sıklığı kadınlarda erkeklerden daha fazladır. Kadınlarda üçüncü ve altıncı dekatlar arasında görülme insidansı fazladır. Tümör genellikle yavaş büyüyen, aseptomatik bir şişlik olarak görülmektedir. Tedavisi cerrahi olarak enükleasyondur. Uygun tedavi prosedürü, yeterli cerrahi eksizyon sağlandığında ve enükleasyon düzgün yapıldığında düşük relaps ve düşük malign tümör transformasyon oranına sahiptir. Uygun tedavi yöntemiyle alınan pleomorfik adenoma, genellikle iyi bir prognoza sahiptir.

**Anahtar Kelimeler:** Minör tükürük bezi tümörü, oral lezyon, pleomorfik adenom

## INTRODUCTION

Pleomorphic adenoma is a benign tumor. It has to be the most prevalent kind that affects the main salivary glands as well as very occasionally occurs in the small salivary glands (1). It is more common in women between the third and sixth decade of their lives. The tumor is often seen as a slowly growing and asymptomatic swelling (2). Surgical enucleation is used to treat Pleomorphic Adenoma. When proper surgical excision is achieved, this treatment technique has a great prognosis, with reduced levels of relapse and only a low minority of malignant transformations occurring (3). In this case, this paper describes a clinical example of Pleomorphic Adenoma of the minor salivary gland that occurred in the palatal area, as well as the procedure that was employed to perform the surgery from such an uncommon place (4).

## CASE REPORTS

### Case 1

A 26-year-old male patient presented to the Department of Oral And Maxillofacial Surgery at Van YüzüncüYil University in Van, Turkey. The patient's primary complaint was swelling in the location of his upper right posterior tooth. The swelling, according to history, was painless and steadily increased in size over a year to its current size. There were no additional symptoms associated with the lesions. There was no history of trauma, inflammation, or comparable edema elsewhere in the body. Medical history indicated that the patient was in good condition and did not have any systemic disorders or harmful habits.

On routine medical assessment, the patient seemed to be of middling build and aware, with a regular surface. The condition of the patient was stable. Every one of his vital indicators seemed to be within normal ranges. Neither facial imbalance nor lymphadenopathy was discovered during the extra-oral assessment. In the right side of the palate, It had been discovered a solitary, oval-shaped enlargement approximately 2 cm x 5 cm,

which was discovered during an intraoral examination. Initially, the enlargement grew anteriorly from the area of 14 to the region of 17, and then posteriorly from the region of 14. It stretched from the midline to the distal portion of the area of 17 laterally, and it was laterally expanded (Figure 1).

Accordingly, surgical excision was planned, in addition to obtaining signed informed permission from the patient. A small incision was made with a No. 15 blade to establish the aperture, and then under local anesthetic, a full of the tumor enucleation was made. An incision was created in the tissues above the tumor, which prevented the tumor capsule from rupturing during the procedure. This was followed by total tissue disclosure, which helped to keep the operative specimen's structural stability intact. The tumor was excised after extensive rinsing with saline was carried out, and a boundary was created in the normal tissue surrounding the tumor to mark the site of removal (Figure 1). A satisfactory level of hemostasis was achieved, and the wound was closed with a polipropylene 5/0 suture (Neoplene@ultra-Polypropylene Monofilament USP 5/0), which was utilized throughout the procedure.

Following the surgery, the patient was released from the hospital. It was submitted for pathological testing, and the results corroborated the prior diagnosis of Pleomorphic Adenoma, which was supported by the report. There were no complications after the procedure. For the next two weeks, the patient was subjected to clinical evaluation (Figure 1), and 1 year with no signs of relapse and with an acceptable recovery appearance respectively.



**Şekil 1.** İnteraoral view of surgical operations for first case.

## Case 2

A 33-year-old female patient presented to the Department of Oral And Maxillofacial Surgery at Van YüzüncüYil University in Van, Turkey. The patient's primary complaint was swelling in the location of his upper right posterior tooth. According to the history, the swelling was painless and gradually expanded in size over a year to its current size. There was no history of trauma, inflammation, or comparable edema elsewhere in the body. The patient's medical history revealed that he was in good health and did not have any systemic diseases or harmful habits.

In the right side of the palate, it had been discovered a solitary, oval-shaped enlargement approximately 2 cm x 4 cm, which was discovered during an intraoral examination. Initially, the enlargement grew anteriorly from the area of 16 to the region of 18, and then posteriorly from the region of 16. It stretched from the midline to the distal portion of the area of 17 laterally, and it was laterally expanded (Figure 2).

As a result, surgical excision was planned, as well as obtaining the patient's written informed consent. A small incision was made with a No. 15 blade to establish the aperture, and then under local anesthetic, a full of the tumor enucleation was made. An incision was created in the tissues above the tumor, which prevented the tumor capsule from rupturing during the procedure. This was followed by complete tissue disclosure, which assisted to maintain the structural stability of the operating specimen. The tumor was excised after extensive rinsing with saline was carried out, and a boundary was created in the normal tissue surrounding the tumor to mark the site of removal (Figure 2). A satisfactory level of hemostasis was achieved, and the wound was closed with a poliprolene 5/0 suture(Neoplene@ultra- Polypropylene Monofilament USP 5/0), which was utilized throughout the procedure.

Following the surgery, the patient was released from the hospital. It was submitted for pathological testing, and the results

corroborated the prior diagnosis of Pleomorphic Adenoma, which was supported by the report. There were no complications after the procedure. For the next two weeks, the patient was subjected to clinical evaluation (Figure 2), and 7 months with no signs of relapse and with an acceptable recovery appearance, respectively.



Şekil 2. İnaoral view of surgical operations for second case.

## Case 3

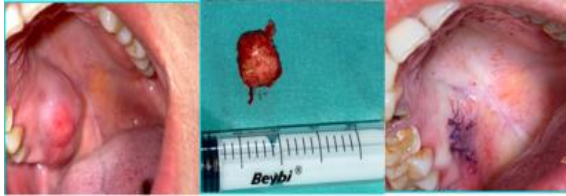
A 28-year-old female patient presented to the Department of Oral And Maxillofacial Surgery at Van YüzüncüYil University in Van, Turkey. The patient's primary complaint was swelling in the location of his upper right posterior tooth. According to history, the swelling was painless and gradually expanded in size over a year to its current size. There was no history of trauma, inflammation, or comparable edema elsewhere in the body. The patient's medical history revealed that he was in good health, with no systemic diseases or bad habits.

In the right side of the palate, It had been discovered a solitary, oval-shaped enlargement approximately 2 cm x 5 cm, which was discovered during an intraoral examination. Initially, the enlargement grew anteriorly from the area of 14 to the region of 17, and then posteriorly from the region of 14. It stretched from the midline to the distal portion of the area of 17 laterally, and it was laterally expanded (Figure 3).

Accordingly, surgical excision was planned, in addition to obtaining signed informed permission from the patient. A sulcular incision was made with a No. 15 blade to establish the aperture, and then under local anesthetic, a full

of the tumor enucleation was made. This was followed by total tissue disclosure, which helped to keep the operative specimen's structural stability intact. The tumor was excised after extensive rinsing with saline was carried out, and a boundary was created in the normal tissue surrounding the tumor to mark the site of removal (Figure 3). A satisfactory level of hemostasis was achieved, and the wound was closed with a polipropylene 5/0 suture(Neoplene@ultra- Polypropylene Monofilament USP 5/0), which was utilized throughout the procedure.

Following the surgery, the patient was released from the hospital. It was submitted for pathological testing, and the results corroborated the prior diagnosis of Pleomorphic Adenoma, which was supported by the report. Following the operation, there were no complications. For the next two weeks, the patient was subjected to clinical evaluation (Figure 3), and 6 months with no signs of relapse and with an acceptable recovery appearance, respectively.



**Şekil 3.** İntrooral view of surgical operations for third case .

Olgu 3'te bahsedilen hastanın operasyon öncesi, operasyon sırası ve operasyon sonrası 1. ay kontrol seansına ait fotoğraflar

#### Case 4

A 47-year-old male patient presented to the Department of Oral And Maxillofacial Surgery at Van YüzüncüYil University in Van, Turkey. The main complaint of the patient was swelling around his upper left posterior teeth. The swelling, according to history, was painless and steadily increased in size over a year to its current size. There had been no previous trauma, inflammation, or edema anywhere in the body. Medical history

indicated that the patient was in good condition and did not have any systemic disorders or harmful habits.

In the left side of the palate, It had been discovered a solitary, oval-shaped enlargement approximately 2 cm x 4 cm, which was discovered during an intraoral examination. Initially, the enlargement grew anteriorly from the area of 27 to the region of maxillary tuberosity, and it was laterally expanded (Figure 4).

Accordingly, surgical excision was planned, in addition to obtaining signed informed permission from the patient. A small incision was made with a No. 15 blade to establish the aperture, and then under local anesthetic, a full of the tumor enucleation was made. An incision was created in the tissues above the tumor, which prevented the tumor capsule from rupturing during the procedure. This was followed by total tissue disclosure, which helped to keep the operative specimen's structural stability intact. The tumor was excised after extensive rinsing with saline was carried out, and a boundary was created in the normal tissue surrounding the tumor to mark the site of removal (Figure 4). A satisfactory level of hemostasis was achieved, and the wound was closed with a polipropylene 5/0 suture(Neoplene@ultra- Polypropylene Monofilament USP 5/0), which was utilized throughout the procedure.



**Figure 4.** İntrooral view of surgical operations for fourth case .

The patient was discharged from the hospital after the procedure. It was submitted for pathological testing, and the results corroborated the prior diagnosis of Pleomorphic Adenoma, which was supported by the report. There were no complications



after the procedure. For the next two weeks, the patient was subjected to clinical evaluation (Figure 4), and 6 months with no signs of relapse and with an acceptable recovery appearance, respectively.

## DISCUSSION

Minor salivary gland tumors account for 21% of all salivary gland tumors, according to the American Association of Clinical Pathologists. The overwhelming amount of these are cancerous, with just 18% of them would be benign (4). Pleomorphic Adenoma manifests itself in the mouth as a painless, slow-growing, compact enlargement that is most usually observed on the posterior lateral side of the palate and appears as a flat (5). PA is a condition in which the patient has no discomfort. As a result of the firmly connected structure of the hard palate tissue, it seems to be permanently defined. Pleomorphic Adenoma tumors in the lips and buccal mucosa are moveable and may be removed if necessary. In most cases, the Pleomorphic Adenoma of the palate is not permitted to grow in size beyond 10 mm to 20 mm in diameter since it creates trouble with mastication, speaking, and eating when it does (6).

In most cases, surgical removal is indicated for the management of PA (7-8). That is because these types of cancers are radioresistant, and so radiation treatment is not recommended (9). These benign tumors are well-encapsulated, but they require excision with a sufficient edge of massively surrounding healthy tissue to avoid possible relapse (10). Several factors contribute to PA relapse, including seeding following capsule disruption, patches of tumor site leaving on after surgery, and the multicentric character of the disease. Because of this, long-term control is necessary (10).

## CONCLUSION

Salivary gland tumors may develop at any place where the salivary gland is found. Pleomorphic adenoma of the palate is a fairly uncommon condition that mainly affects

adults. The much more frequent sign is a slowly developing, asymptomatic submucosal swelling on the hard palate, which is the most frequent problem symptom. The accurate diagnosis is confirmed by pathological analysis, and management is accomplished through tumor resection with broad boundaries of resection. It is possible to get excellent outcomes by allowing the wound to granulate and heal on its own. Relapses are rare; however, they may be seen in patients who have been followed for a lengthy period.

## REFERENCES

1. Sharma Y, Maria A, Chhabria A. Pleomorphic adenoma of the palate. Natl J Maxillofac Surg. 2011;2:169–171.
2. Mendenhall W, Mendenhall C, Werning J, Malyapa R, Mendenhall N. Salivary gland pleomorphic adenoma. Am J Clin Oncol. 2008;31:95–99.
3. Spiro H. Salivary neoplasms: an overview of a 35-year experience with 2,807 patients. Head Neck Surg. 1986; 8:177-184.
4. Daryani D, Gopakumar R, Ajila V. Pleomorphic adenoma of the soft palate: myoepithelial cell predominant. Indian J Dent Res. 2011;22:853–856.
5. Rawson K, Kallalli B, Gokul K, Singh A. Pleomorphic adenoma of the palate: a case report and review of a rare entity. J Indian Acad Oral Med Radiol. 2016;28:329–333.
6. Arumugam P, Christopher P, Kumar S, Kengasubbiah S, Shenoy V. Pleomorphic adenoma of the palate: a case report. Cureus J of Med Science. 2019;3:11.
7. Sachdeva S, Verma P, Sunderraj S, Vengal M. Pleomorphic adenoma of the palate in an edentate male patient: an unusual clinical presentation. Clin Cancer Investig J. 2015;4:240–242.
8. Sahoo N, Rangan M, Gadad R. Pleomorphic adenoma palate: major tumor in a minor gland. Ann Maxillofac Surg. 2013;3:195–197.
9. Patigaroo S, Patigaroo F, Ashraf J, Mehfooz N, Shakeel M, Khan N, Kirmani M. Pleomorphic adenoma of the hard palate. J Maxillofac Oral Surg. 2014;13:36–41.
10. Rahnema M, Orzędala U, Czupkałło L, Lobacz M. Pleomorphic adenoma of the palate: a case report and review of the literature. Contemp Oncol. 2013;17:103–106.

Mohammad Alnasrallah, DDS " Pleomorphic Adenoma of the Palate: A Case series " Van Dış Hekimliği Dergisi 2022;3(1);44-49.