International Medical Case Reports Journal

Dovepress
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CASE REPORT

Giant Pleomorphic Adenoma of the Hard Palate in a 17-Year-Old Afghan Male

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Abstract: Pleomorphic adenoma (PA) is a benign salivary gland tumor. It most commonly affects the major salivary glands, especially the parotid gland. PA is more common in women and usually manifests in the fourth and fifth decades of life. Clinically, it manifests as a well-defined, painless swelling with intact mucosa. Here, we report a rare case of pleomorphic adenoma in a 17-year-old Afghan male, located on the hard palate, which was completely enucleated without postoperative complications. At a three-month telephonic follow-up, no recurrence or adverse findings were reported.

Keywords: hard palate tumor, minor salivary gland, pleomorphic adenoma

Introduction

One of the most common benign salivary gland tumors is pleomorphic adenoma (PA), a mixed tumor which is counted for 73–75% of all salivary glands.[1] PA is described histologically as having an epithelial and mesenchymal origin. It primarily affects the major salivary glands, The parotid gland accounts for around 75% of these tumors, with the submandibular gland (15–17%) and the minor nasal and sublingual glands (10–12%) following closely behind.[2] Rarely, PA is found in the trachea, floor of the mouth, lips, and larynx's small glands (5–7%).[3,4] The most frequent intraoral location is the palatal mucosa, which is followed by the buccal and upper lip mucosa. In rare cases, PAs have been found in the breast, axilla, ear, mediastinum, upper and lower extremities, soft tissues, lymph nodes, and lacrimal glands.[5] PAs can coexist with other oral cancers and lesions both synchronously (eg, concurrent PA and Warthin's tumor in the same parotid gland, or simultaneous PA in separate salivary sites)[6,7] and asynchronously (eg, malignant transformation to carcinoma ex pleomorphic adenoma over time).[8] During the prehospital stage, it is challenging to make an initial clinical diagnosis because the tumor usually presents with minor symptoms. Despite PA's seemingly benign appearance, its biological behavior and prognosis point to a low-grade malignancy, which calls for prompt treatment wherever it is detected.[9]

Clinically, PAs are painless, clearly defined, and coated in healthy mucous membranes. Ulcerations can occasionally be seen. Singular and movable nodules are related. Unlike minor gland tumors, major gland tumors are typically encapsulated.[1] The PAs can be diagnosed using computed tomography, magnetic resonance imaging, ultrasound, and sialograpy and treated surgically (partial, subtotal and total parotidectomy)[10] removing the affected bone and periosteum.[1] The definitive diagnosis of PA is based on histopathological analysis.[11] In addition to determining whether a tumor is benign or malignant, morphological approaches can be used to identify the tumor's origin (tumor phenotype). Depending on their origin, PA are categorized morphologically in a number of ways in the literature.[12]

Here, we describe a rare case of PA in a male Afghan patient, age 17. The tumor was found in the hard palate and was successfully removed with full enucleation.

Case Presentation

A 17-year-old male presented in the oral and maxillofacial Surgery department of National Curative and Specialized Stomatology Hospital with a swelling on the hard palate, associated with discomfort while eating and interference with

https://doi.org/10.2147/IMCRJ.S580930
Received: 12 November 2025
Accepted: 29 January 2026
Published: 4 February 2026

tongue movement. The patient first noticed a small mass in the same area approximately two years ago, which was painless and gradually increased in size. There was no relevant past medical or dental history.

On clinical examination, no significant extra-oral findings were detected. Intraorally, a well-circumscribed, oval-shaped, firm, and painless mass approximately 3.5×4.5 cm was noted on the right side of the hard palate, crossing the midline. The overlying mucosa appeared stretched and bluish, with a superficial ulceration, most probably due to mucosal tension. The lesion was non-mobile, and the ulcer did not bleed on palpation (Figure 1). Computed tomography (CT) imaging revealed no underlying bone resorption or cortical involvement. A provisional diagnosis of pleomorphic adenoma, basal cell adenoma and fibroma was made.

Management & Follow-Up

After the informed consent was taken from his father, the patient underwent surgical excision under general anesthesia (Figure 2). A mucosal incision was made over the tumor and the mucosa was bluntly dissected off. The tumor was then removed completely (Figure 3), preserving the overlying mucosa. The underlying palatal bone was curetted to remove any residual tumor cells and there was no bone erosion. The flap was then repositioned and sutured with 3–0 silk.

Postoperatively, the patient was kept under observation for 24 hours and was discharged in stable condition. The patient was prescribed medications and was asked to return 7 days later for suture removal. The patient was stable at the time of suture removal.

As it was not possible for the patient to present for in-person follow-up, one month and three months postoperatively the patient was contacted by phone and he reported a complete healing of surgical site with no complaints.

Histopathological Examination

The enucleated tumor was preserved in formalin solution 10% and sent for histopathological examination. The histopathological examination report revealed a well-circumscribed neoplasm arranged in nests and sheets, surrounded by a collagenous capsule. The neoplasm was composed of squamous epithelial cells, mesenchymal cells, and myoepithelial cells within a myxoid background. The epithelial cells were round to polygonal with hyperchromatic nuclei and prominent nucleoli. Mitotic figures and necrosis were not observed. The diagnosis was PA.

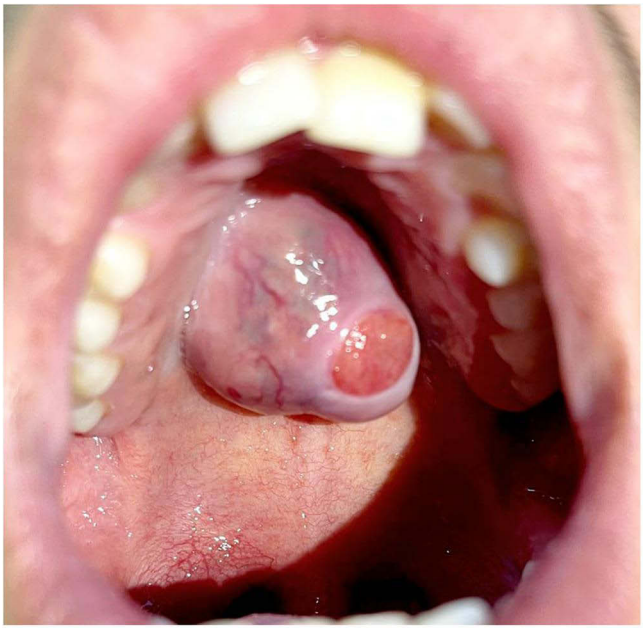

Figure 1 Shows a clear ulceration..

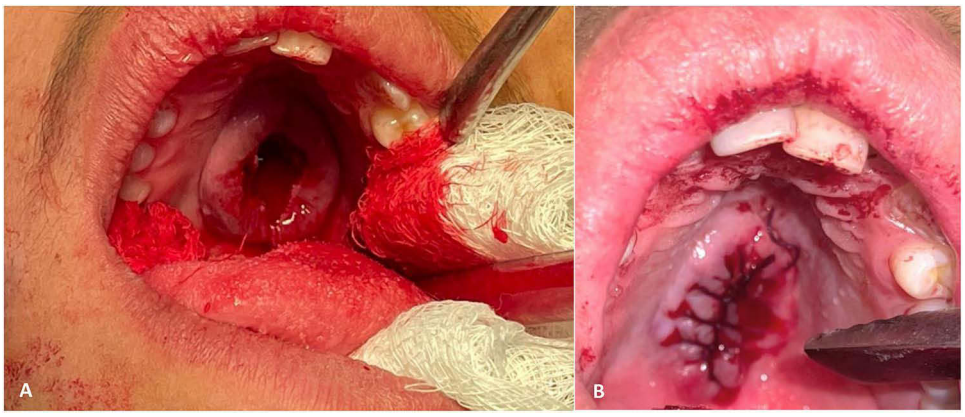

Figure 2 Intraoperative views: (**A**) Tumor completely enucleated. (**B**) Mucosal flap repositioned and sutured with 3–0 silk.

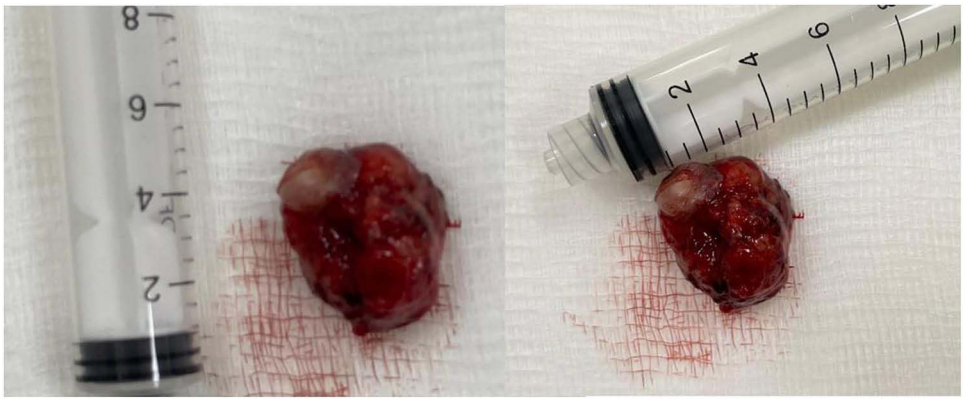

Figure 3 Gross appearance of the excised tumor after enucleation, measuring approximately 4.5×3.4 cm.

Discussion

The prevalence of tumors in the salivary glands accounts for 20–40%.[13] The potential of developing a malignant tumor increases with the size of the impacted salivary glands – the smaller the glands, the more probability of malignancies.[14] The fourth to sixth decades of life are the age group most impacted by this ailment, and females are more likely to have it.[15] However, the tumor in this case developed in a 17-year-old male and was located on the hard palate, which is uncommon. To the knowledge of the authors, there is no report of PA of the hard palate in the second decade of life. For the first and third decades of life, PA of hard palate has been documented in a few studies.[16–20]

In the present case, the CT scan showed no bone involvement, and only the study by K Rowson et al[21] have reported similar findings. Other several reports in the literature have described cases of PA of the hard palate with underlying bone erosion.[19,22,23]

In most cases, PA presents as a painless swelling that gradually enlarges and is primarily round or granular in appearance. This condition is typically seen on the hard and soft palate since there are a lot of minor salivary glands there.[24] In contrast, the lesion in the present case was located on the hard palate, grew slowly, and had an oval and smooth appearance rather than a granular shape. The study by M Rahnama et al[23] reported similar findings of smooth appearance of the lesion.

Different forms of PA have distinct embryological etiologies. It comes from both mesenchymal and epithelial sources. Each of these components varies greatly in proportion, with one or the other frequently predominating. While the "myxoid" kind of pleomorphic adenoma is mostly made up of a myxomatous or myxochondromatous mesenchymal-like part, the "cellular" type is one in which the epithelial element predominates. One typical kind is the "mixed" type. Spindle, transparent, squamous, basaloid, cuboidal, plasmacytoid, oncocytic, mucous, and sebaceous are some of the several types of epithelial cells.[25–27] A fibrous capsule separates the mass from its surroundings. Fibrosis of the surrounding salivary parenchyma, which

https://doi.org/10.2147/IMCRJ.S580930

includes the tumor and is referred to as the false capsule, causes the capsule to form.[28] PAs are usually well circumscribed, encapsulated tumors but there can be incomplete capsules in minor salivary gland tumors.[29]

Physical and radiological examination, history, clinical appearance of the lesion, and histological evaluation are the primary determinants of the tumor's clinical diagnosis.[30] A computed tomography scan can reliably determine bony invasion and erosion, as well as the extent of the disease. Delineating soft tissue spread is aided by magnetic resonance imaging scans.[31] The differential diagnosis for this condition can be soft tissue tumors including neurofibroma, fibroma, and neurilemmoma, as well as palatal abscess and cysts of odontogenic or nonodontogenic origin.[30] Since palatal abscess develops from a non-vital tooth, it can be ruled out through examination. If the mass does not have a cystic consistency, odontogenic and nonodontogenic cysts can be ruled out during tumor examination. Myoepithelioma is a benign tumor that arises from the salivary glands' epithelial cells and is distinguished by spindle-shaped cells.[32]

The recommended treatment approach for PA is a complete local excision including bone or periosteum removal. It is advised to take surgical excision because simple enucleation of the lesion may cause recurrence.[33] However, pleomorphic adenomas of the minor glands are not likely to recur (recurrence rates range from 2 to 44%, with the parotid gland being the most common).[1] In the present case, the tumor had been present for the past two years, initially appearing as a small mass. Computed tomography imaging revealed no bone involvement; therefore, complete enucleation of the lesion was planned.

If surgical excision of malignant tumors results in extensive involvement of palatal bone, palatal reconstruction is considered.[15] Since there was no evidence of bony invasion in this case, palatal repair was not required. The palatal mucosal flap was closed primarily and healed uneventfully without the formation of a fistula. Compared to surgically exposing the tumor or its capsule, which involves the risk of spilling and increases the potential of recurrences, PAs of the minor glands have a low probability of recurrence.[12] Recurrent of PAs often develop into multiple, separate nodules with in the residual salivary gland, periparotid tissues, dermis or scar tissues, even years or decades after first surgical treatment.[34] The primary cause of the recurrence was shown to be inadequate or insufficient surgical treatment. Pseudocodia, capsular penetration, and tumor rupture are among the frequent surgical complications. There have also been reports of distant metastases in a number of patients.[35–37] In the present case, the lesion initially appeared as a small submucosal mass. However reports on rare cases have shown that PA may present as a small ulcer and, if left untreated, gradually increases in size. Studies indicates that approximately 50% of small salivary gland tumors are cancerous, with adenoid cystic carcinoma being the most common.[36,37]

Limitations

The main limitation of this case report was the inability to perform active long-term follow-up, as the patient was unable to return for postoperative visits and establishing phone contact was challenging due to residence in a remote rural area with poor signal coverage. Another limitation was the unavailability of the original CT images, as the imaging was performed at an external facility that does not archive data beyond one month; despite repeated attempts, the patient could not be contacted to provide the retained images. Although long-term follow-up could not be actively performed in the present case, patients with pleomorphic adenoma should be advised to undergo periodic clinical monitoring for 5 to 10 years to detect potential recurrence.

Conclusion

PA is a benign salivary gland tumor occurs most commonly in the parotid gland. Accurate clinical examination, radiological evaluation and histopathological investigation is essential for its diagnosis. Complete surgical removal of the tumor is necessary to decrease the risk recurrence. In the present case, although long-term follow-up was not possible, the complete enucleation of the tumor without bone involvement resulted satisfactory healing and there was no postoperative complication.

Ethics and Consent Statements

Written informed consent for publication of their details was obtained from the parent of the patient. Institutional approval was not required for the publication of the case details.

Acknowledgments

We would like to express our sincere gratitude to Trainer Specialist Dr. Sayed Wahabuddin Mirzad for his administrative coordination. We also extend our thanks to Consultant Specialist Dr. Ezzatullah Amarkhel, Specialist Dr. Khairullah Zahab, and (Resident) Dr. Naveed Ghorzang for their valuable contributions to the surgical management of this case. Our appreciation also goes to (Resident) Dr. Zabihullah Hamdard for his assistance in obtaining the histopathological report.

Special thanks are due to the patient and his guardian for their kind consent to use the case data for publication.

Finally, we acknowledge the use of (OpenAI) ChatGPT-5 free version for language editing and improvement of grammar and readability in this manuscript.

Funding

No funding was received for this study.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Gupta P, Gupta M. Rare case report: young male hard palate pleomorphic adenoma. *Indian J Otolaryngol Head & Neck Surg*. 2021;73(4):510–513. doi:10.1007/s12070-020-01887-w
2. Nascimento LA, Vilela TG. Pleomorphic adenoma of the tongue base: case report and review. *Int Arch Otorhinolaryngol*. 2014;18(3):328–331. doi:10.1055/s-0033-1351683
3. Verma P, Sachdeva SK, Verma KG, Sachdeva K. Pleomorphic adenoma of cheek: a rare case report and review of literature. *Indian J Dental Res*. 2014;25(1):122–124. doi:10.4103/0970-9290.131166
4. Kumar SS, Reddy P, Prabhakar G. Pleomorphic adenoma of the nasal septum--a case report. *Indian J Pathol Microbiol*. 2004;47(3):397–398.
5. Patankar S, Sharma R, Patankar A, Kulkarni V. Rare case of giant myoepithelioma in minor salivary glands of palate in a 9-year-old child. *Natl J Maxillofac Surg*. 2021;12(2):284–288. doi:10.4103/njms.NJMS_16_19
6. van der Wal JE, Magan MB, Flygare L, Nylander K. Bilateral synchronous salivary gland tumors: report of three cases. *Diagn. Pathol*. 2025;20 (1):74. doi:10.1186/s13000-025-01672-9
7. Klamminger GG, Issing C, Burck I, et al. Uncommon coexistence of pleomorphic adenoma and warthin's tumor in a painfully swollen left parotid gland: a surgical case report. *Am J Case Rep*. 2023;24:e940985. doi:10.12659/AJCR.940985
8. Di Palma S. Carcinoma ex pleomorphic adenoma, with particular emphasis on early lesions. *Head and neck pathology. Head and Neck Pathology*. 2013;7(Suppl 1):S68–76. doi:10.1007/s12105-013-0454-z
9. AlSahman L, Alghamdi O, Albagieh H, AlRefai A, AlSahman R, Alnafea S. Pleomorphic adenoma of hard palate: review of updated literature and "case report". *Medicine*. 2024;103(36):e39529. doi:10.1097/MD.0000000000039529
10. Pujani M, Sidam D, Singh K, Khandelwal A, Katarya K. Xanthogranulomatous change in a pleomorphic adenoma: an extremely rare variant/ degenerative change. Is it fine needle aspiration induced? *Diagn. Cytopathol*. 2021;49(2):E71–e74. doi:10.1002/dc.24585
11. Kalwaniya DS, Meena R, Kumar D, Tolat A, Arya SV. A review of the current literature on pleomorphic adenoma. *Cureus*. 2023;15:7.
12. Laturiya R, Kasim JS, Jankar AS, Mohiuddin SA. Pleomorphic adenoma of minor salivary gland arising de novo in the parapharyngeal space-a rare case report. *J Clin Diagn Res*. 2016;10(3):Zd01–3. doi:10.7860/JCDR/2016/18435.7356
13. Abe A, Kurita K, Hayashi H, Minagawa M. A case of minor salivary gland sialolithiasis of the upper lip. *Oral and Maxillofacial Surg*. 2019;23 (1):91–94. doi:10.1007/s10006-019-00745-6
14. Gupta M, Gupta M. Pleomorphic adenoma of the hard palate. *Case Reports*. 2013;2013:bcr2013008969.
15. Sun X, He D, Wen Q, et al. Diagnosis and therapeutic strategies of unusual subglottic pleomorphic adenoma: a rare case report and literature review. *Ear, Nose Throat J*. 2023:01455613231181456.
16. Ndiaye C, Diouf MS, Ahmed H, et al. Pleomorphic adenoma of the palate: diagnostic and surgical strategy. *Case Reports in Otolaryngol*. 2024;2024(1):6400515. doi:10.1155/2024/6400515
17. Nokaneng E. Invasive recurrent pleomorphic adenoma of the palate: a case report and literature review. *Oral and Maxillofacial Surg Cases*. 2022;8 (4):100281. doi:10.1016/j.omsc.2022.100281
18. Soman S, Das A, Aslam S, Thomas T. Pleomorphic adenoma of palate–a case report and review of literature. *J Dent Oral Sci*. 2020;2(4):1–7.
19. Center RD, Ali I, Al Bakri IM, Sumangala B. Pleomorphic adenoma of the palate in children and adolescents: a report of 2 cases and review of the literature. *J Oral Maxillofac Surg*. 2007;65:541–549. doi:10.1016/j.joms.2006.08.005
20. Shaaban H, Davenport PJ, Bruce J. Recurrent pleomorphic adenoma of the palate in a child. *Br J Plast Surg*. 2001;54(3):245–247. doi:10.1054/ bjps.2000.3536
21. Rawson K, Kallalli BN, 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(3):329–333. doi:10.4103/0972-1363.195655
22. Sharma S. Pleomorphic adenoma of hard palate: a case report and review of literature. *IJSS*. 2015;1(12):12.
23. Rahnama M, Orzędała-Koszel U, Czupkałło Ł, Łobacz M. Pleomorphic adenoma of the palate: a case report and review of the literature. *Contemporary Oncol/Współczesna Onkologia*. 2013;17(1):103–106. doi:10.5114/wo.2013.33438
24. Jain S, Hasan S, Vyas N, Shah N, Dalal S. Pleomorphic adenoma of the parotid gland: report of a case with review of literature. *Ethiopian J Health Sci*. 2015;25(2):189–194. doi:10.4314/ejhs.v25i2.13

25. Kawahara A, Harada H, Kage M, Yokoyama T, Kojiro M. Characterization of the epithelial components in pleomorphic adenoma of the salivary gland. *Acta cytologica*. 2002;46(6):1095–1100. doi:10.1159/000327113
26. Mendenhall WM, Mendenhall CM, Werning JW, Malyapa RS, Mendenhall NP. Salivary gland pleomorphic adenoma. *Am J Clin Oncol*. 2008;31(1):95–99. doi:10.1097/COC.0b013e3181595ae0
27. Ogata H, Ebihara S, Mukai K. Salivary gland neoplasms in children. *Jap j clin oncol*. 1994;24(2):88–93.
28. Mok Y, Min En N, Chwee Ming L, Petersson F. Minimally invasive carcinosarcoma ex pleomorphic adenoma: a case report and literature review with cytohistological correlation. *Head Neck*. 2016;38(9):E2483–E2489. doi:10.1002/hed.24462
29. Vellios F, Shafer WG. Tumors of the intraoral accessory salivary glands. *Surg Gynecol Obstet*. 1959;108(4):450–456.
30. Shetty S, Nayak DR, Jaiprakash P. Pleomorphic adenoma of nasal septum: a rare case. *Case Reports*. 2018;2018:bcr–2017–223148.
31. Skylis RR, de Souza GB, de Almeida RC, Dedivitis RA. Pleomorphic adenoma in tonsil. *J Surg Case Rep*. 2023;2023(5):rjad261. doi:10.1093/jscr/rjad261
32. Almeslet AS. Pleomorphic adenoma: a systematic review. *Int J Clin Pediatric Dentistry*. 2020;13(3):284. doi:10.5005/jp-journals-10005-1776
33. Wu Z, Liu D, Peng S, et al. Surgical treatment of a giant pleomorphic adenoma of the submandibular gland: a case report. *Frontiers in Surgery*. 2022;8:800563. doi:10.3389/fsurg.2021.800563
34. Prakash C, Tanwar N, Dhokwal S, Devi A. A rare case report of pleomorphic adenoma of the upper lip: an unusual clinical presentation. *National J Maxillofacial Surg*. 2022;13(Suppl 1):S225–S227. doi:10.4103/njms.NJMS_92_20
35. Singh A, Handa A-C, Sachdev R. Synchronous parotid and homolateral submandibular gland pleomorphic adenoma. *Iranian J Otorhinolaryngol*. 2019;31(104):185.
36. Yoshida N, Hara M, Kanazawa H, Iino Y. Large carcinoma ex pleomorphic adenoma of the parotid gland: a case report and review of literature. *J Oral Maxillofacial Surg*. 2013;71(12):e1–2196.e6. doi:10.1016/j.joms.2013.08.026
37. Umar Z, Ilyas U, Alshamam MS, et al. Carcinoma ex pleomorphic adenoma of the parotid gland: a rare case. *Cureus*. 2022;14:5.