

CASE REPORT

Pleomorphic Adenoma of the Soft Palate: The Pillars of Reconstruction

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ABSTRAK

Tumor kelenjar air liur menyumbang kurang daripada 5% dalam semua jenis tumor kepala dan leher. Tumor yang paling biasa pada kelenjar air liur ialah adenoma pleomorfik. Lelangit adalah subsit paling biasa dalam rongga mulut yang terjejas oleh tumor ini. Kami di sini membincangkan kes adenoma pleomorfik lelangit lembut dan dilema pembinaan semula lelangit. Seorang lelaki berumur 41 tahun mengalami bengkak lelangit lembut, yang meningkat saiz secara beransur-ansur dalam tempoh 5 tahun yang lalu. Pemeriksaan intraoral mendedahkan bengkak lelangit, jisim 3x3 cm terhadap lelangit lembut, tidak melintasi garis tengah, tidak menceroboh lelangit keras, tetapi tidak melibatkan trigon retromolar dan sulcus gingivobuccal. Biopsi dilakukan dan pemeriksaan histopatologi menunjukkan ciri-ciri adenoma pleomorfik. Dia menjalani pembedahan membuang bengkak tersebut dengan pembinaan semula lelangit menggunakan "flap myomucosal buccal". "Buccal flap" adalah pilihan yang sangat baik kerana lokasi yang dekat dengan pemulihan yang baik. Masalah gigitan pada flap adalah salah satu isu yang dihadapi. Pesakit pulih dengan baik selepas menjalani revisi flap. Adenoma pleomorfik kelenjar air liur kecil lelangit lembut dirawat dengan pembedahan, tetapi membina semula kecacatan palatal adalah asas untuk menguruskan tumor ini. Matlamatnya adalah untuk mengekalkan kefungsiannya dan untuk mengelakkan

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kekurangan velofaringeal. "Buccal myomucosal flap" menawarkan kedua-dua faedah, sebagai tambahan dalam kedekatan terhadap kecacatan dengan morbiditi penderma yang boleh diabaikan.

Kata kunci: Adenoma pleomorfik; flap; pembinaan semula

ABSTRACT

Salivary gland tumour contributed less than 5% of all head and neck tumours. The most common benign tumour of the salivary glands is pleomorphic adenoma. Palate is the common subsite in the oral cavity affected by this tumour. We herein discussed a case of pleomorphic adenoma of the soft palate and the reconstruction dilemma. A 41-year-old male presented with soft palate swelling, which gradually increasing in size in the last 5 years. Intraoral examination revealed well defined, 3x3 cm circumscribed mass at the soft palate, not crossing the midline, encroaching the hard palate, but spared the retromolar trigone and gingivobuccal sulcus. Incisional biopsy performed and histopathological examination showed features of pleomorphic adenoma. He underwent wide local excision of the pleomorphic adenoma with reconstruction using buccal myomucosal flap. Buccal flap was an excellent choice due to its proximity with good recovery. Pleomorphic adenoma of minor salivary gland of the soft palate was managed by complete excision but reconstructing the palatal defect was the cornerstone of managing this tumour. The aim was to preserve functionality and to prevent velopharyngeal insufficiency. Buccal myomucosal flap offered both advantageous, in addition to its proximity to the defect with negligible donor morbidity.

Keywords: Flap; pleomorphic adenoma; reconstruction

INTRODUCTION

Salivary gland tumour contributes less than 5% of all head and neck tumours (Galdirs et al 2019). The most common benign tumour of the salivary glands is pleomorphic adenoma (Passi et al. 2015). It has a feature of pleomorphism, hence the name is given. A total of 80% of pleomorphic adenoma affect the parotid gland and the rest occur in the minor salivary glands (Passi et al. 2015; Sanjoy et al. 2018; Singh et al.

2010). Palate is the common subsite in the oral cavity that is affected by this tumour (Galdirs et al. 2019). Complete excision is the standard of treatment, but with regards to the defect, the utilisation of local flaps or free tissue transfer is warranted for reconstruction (Forde et al. 2018; Kimia et al.2019). In this case, our experience with buccal myomucosal flap conferred good experience and outcome, resulted with patient's satisfaction.

CASE REPORT

A 41-year-old male presented with soft palate swelling, which gradually increasing in size in the last 5 years, which resulted in discomfort only. Intraoral examination revealed well defined, 3x3 cm mass at the soft palate, not crossing the midline, encroaching the hard palate, but spared the retromolar trigone and gingivobuccal sulcus. Incisional biopsy under general anaesthesia was performed and histopathological examination showed features of pleomorphic adenoma. The mass became ulcerated after the procedure (Figure 1). Contrast enhanced computed tomography (CECT) scan showed well-defined mass localised at the soft palate, with no evidence of bony erosion. He underwent wide local excision of the pleomorphic adenoma with reconstruction using buccal myomucosal flap. Under general anaesthesia, by using Boyles-davies mouth gag (Figure 2), the

palatal mucosa incised using blade size 15, and the tumor removed en bloc with the capsule intact. The buccal myomucosal flap marked with surgical marker. Stensen's duct was identified and excluded from the planned myomucosal flap. The flap was designed 5 mm below the duct and extended anteriorly toward the ipsilateral oral commissure. After infiltration of local anaesthetic, a sharp diathermy was used to incise around the buccal flap with a 4-0 silk suture on the inner cheek serving as a stay suture. The buccinator muscle was identified and elevated with the flap, dissecting in the plane of the buccopharyngeal fascia posteriorly until a flap rotated into the defect. The posterior-based myomucosal flap was sutured to the palate using 4-0 vicryl suture. The donor site was primarily repaired using 4-0 vicryl suture. The flap pedicle crosses the 2nd upper molar, thus expected to cause biting problem (Figure 3). Revision of the



FIGURE 1: The well circumscribed mass confined to the soft palate, but the mucosal surface became ulcerated after performing incisional biopsy



FIGURE 2. The tumor excised via transoral approach using Boyles davies mouth gag and the buccal myomucosal flap sutured to the soft palate



FIGURE 3: The pedicle obstructed the 2nd molar, thus caused biting problem



FIGURE 4: The flap was revised and became well-healed

flap was performed 1 month later, whereby the pedicle was cut and sutured. Subsequently, the flap healed (Figure 4) and patient was able to take orally well without any evidence of velopharyngeal insufficiency.

DISCUSSION

Salivary gland tumour commonly affect adults and are rare among all head and neck tumours (Galdirs et al 2019; Passi et al. 2015). Pleomorphic adenoma (PA) is the most common benign salivary gland tumour, primarily affecting the parotid gland (Passi et al. 2015; Sanjoy et al. 2018; Singh et al. 2010). A total of 40% of intraoral minor salivary gland tumours are pleomorphic adenoma, and about half of the tumour occur at the palate (Forde et a. 2018). PA of soft palate commonly affected those between the fourth and sixth decade with female affected more than male (Forde et al. 2018). Soft palate pleomorphic adenoma characterised as smooth-surface submucosal mass with rubbery

consistency. Histologically, it consists of polygonal epithelial component and spindle-shaped myoepithelial component with stroma of mucoid, myxoid, cartilaginous, or hyaline in the background. Pleomorphic adenoma has three histologic subtypes, which are myxoid, cellular of myoepithelial type, and mixed type (Passi et al. 2015; Sanjoy et al. 2018). The main diagnostic modalities are fine needle aspiration or biopsy and imaging. The aim of imaging is to rule out palatal erosion, adjacent bone involvement and delineation of soft tissue (Forde et al. 2018). Diagnostic imaging modalities include CECT scan which is excellent for demonstrating bony erosion due to the palatal lesions. Magnetic resonance imaging (MRI) provides excellent soft tissue delineation and neurovascular spread. CT scan and MRI can provide information on the location, size and the extension of tumour to nearby structures and aid in determining type of tumour. The hallmark of preservation of fat plane rules out malignancy (Passi et al. 2015; Sanjoy et al. 2018). The

possible differentials diagnosis for the pleomorphic adenoma of the soft palate are odontogenic cyst, fibroma, lymphoma, and malignant minor salivary gland tumour (Passi et al. 2015; Sanjoy et al. 2018). Histopathological confirmation is required to rule out benign and malignant tumours (Sanjoy et al. 2018). The standard management of palatal pleomorphic adenomas is a wide local excision, including a cuff of normal tissue around the tumour (Forde et al. 2018; Passi et al. 2015; Sanjoy et al. 2018). Recurrence of the tumour is uncommon but can be due to intraoperative breach of capsule and inadequate surgical excision (Forde et al. 2018; Passi et al. 2015). The common surgical approaches for tumours of the soft palate as mentioned in previous articles are transoral, transcervical, and trans mandibular (Forde et al. 2018). The surgical approach depends on the size of the tumour as well as location, with the aim to maximise exposure for complete tumour excision and good haemostatic control (Forde et al. 2018). There are few factors to take into consideration to decide on the surgical approaches such as tumour size, tumour vascularity and the extension of the tumour to the neck or oropharyngeal wall (Forde et al. 2018; Passi et al. 2015). With regards to the tumour of the hard palate, tooth extraction may be necessary for adequate margin (Forde et al. 2018; Passi et al. 2015). In our case, we preferred transoral approach as it was a cosmetically rational approach for appropriate size tumour and offers a direct access to the soft palate. However, this approach confers

limitation in haemostasis of bleeding vessels. Reconstruction of the palate is a challenging task. For small defect, closure can be achieved by primary closure or by secondary intention (Kimia et al. 2019; Passi et al. 2015). On the other hand, for large defects, free flap is preferred, with the ideal tissue being thin, such as a radial forearm fasciocutaneous or anterolateral thigh flap. However, there is a risk of donor morbidity (Kimia et al. 2019; Passi et al. 2015). In our case, we chose buccal myomucosal flap, which is a pedicle flap. Buccal myomucosal flap can be the first choice to repair defects of the nasal septum, midface, orbit and palate (Van Lierop & Fagan 2008). This flap is supplied by the buccal, facial and posterosuperior alveolar arteries and the flap can be based either posteriorly, anteriorly, or superiorly (Van Lierop & Fagan 2008). The boundaries of the flap are the pterygomandibular raphe posteriorly, parotid duct superiorly and the oral commissure anteriorly (Van Lierop & Fagan 2008). The inferior limit depends on defect size. Buccal myomucosal flap is an excellent choice due to its proximity with good recovery. Pedicle-biting is one of the issues encountered. Other issues are foreign-body sensation during chewing and pain. However, the patient recovered well after underwent revision of the flap 1 month later.

CONCLUSION

Pleomorphic adenoma of minor salivary gland of the soft palate was treated by complete excision but the reconstructing the palatal

defect was the cornerstone of managing this tumour. The aim was to preserve functionality and prevent velopharyngeal insufficiency. Buccal myomucosal flap offers both advantageous, in addition to proximity to the defect with negligible donor morbidity.

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