

## Bogota Bag Inspired Technique for the Treatment of Palatal Pleomorphic Adenoma

Jameel Desai\*

Department of Maxillofacial and Oral surgery, University of Pretoria, Gauteng, South Africa.

### \*Correspondence:

Jameel Desai, Department of Maxillofacial and Oral surgery, University of Pretoria, Gauteng, South Africa, E-mail: drdesai@maxfac.co.za.

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### ABSTRACT

*The resection of palatal pleomorphic adenoma is a common procedure, as these benign salivary gland neoplasms occur with frequency on the hard palate. There are some methods of addressing the healing of the defect, but a simple and inexpensive technique, inspired by the "Bogota bag" method used by general surgeons is proposed.*

### Keywords

Pleomorphic Adenoma, Palate, Bogota bag, Reconstruction.

### Introduction

Pleomorphic adenoma (PA) is a benign neoplasm of the salivary glands, occurring most frequently in the parotid and submandibular glands. It is also found to occur in the minor salivary glands of the hard and soft palate, buccal mucosa and mucosa of the lips. PA is the most common (55%) benign salivary gland neoplasm [1,2]. They arise most commonly in females in their 5th and 6th decades, and once excised carry a low rate of recurrence. The 20yr recurrence rate is around 6.7%, and the median time for recurrence is 7 years [3]. Longstanding and larger PA's are at risk of undergoing malignant transformation, as is evident in carcinoma ex pleomorphic adenoma. Further, there is also an increased risk of metastasising PA with recurrence of previously excised lesions [4]. In lieu of this, it becomes imperative that palatal PA's are adequately excised with a peripheral margin of tumour free tissue. This excision leaves a large denuded area of palatal bone, which requires healing by secondary intention. A simple technique to treat palatal PA is proposed, that draws inspiration from a well known method of interim abdominal wall closure, known as the "Bogota bag" technique [5].

### Patient and Method

The patient, a 26yr old male presented with a rubbery firm, sessile mass of the hard palate that was first noticed three years prior, but had steadily enlarged. The lesion was of normal colouration and was painless, but had become troublesome during mastication,

deglutition and speech articulation. The clinical dimension was 6cm x 3cm and extended from 1cm posterior of palatal aspect of upper incisors to 1cm of the posterior margin of the soft palate. It was 0.25cm from the palatal gingival sulci and crossed the midline by a further 0.5cm (Figure 1). A prior incisional biopsy confirmed the lesion as a benign Pleomorphic.



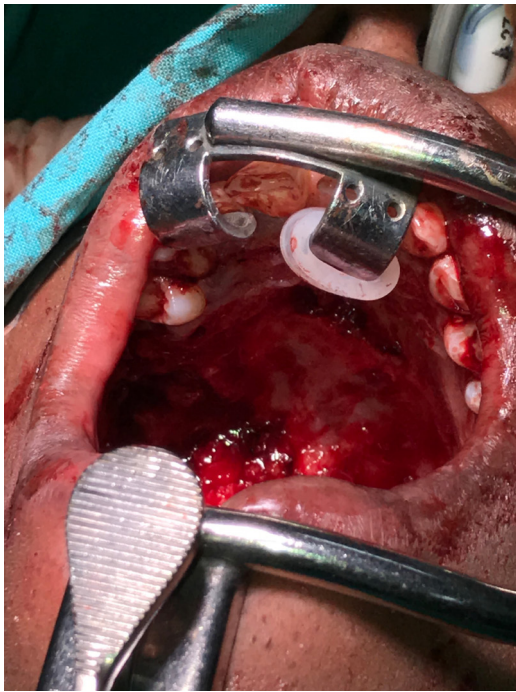
**Figure 1:** Preoperative view of large palatal pleomorphic adenoma, note the scar of prior incisional biopsy site.



**Figure 2:** The excised specimen with a margin of clinically tumour free tissue.



**Figure 4:** The palate was packed with BIPP ribbon gauze, which was adapted to the defect.



**Figure 3:** The denuded hard palate can be seen after the lesion was removed.

Adenoma (PA). The lesion was excised under general anaesthesia (Figure 2), and the denuded palatal bone (Figure 3) was dressed with BIPP (Bismuth Iodine Paraffin Paste) impregnated ribbon gauze (Figure 4). A sterile intravenous drip bag was then emptied of its content and the bag cut and fashioned to cover the exposed palate and BIPP gauze. This plastic stent was then circumferentially sutured to the surrounding peripheral mucosa of the hard and soft palate (Figure 5). The patient was discharged from hospital the morning after surgery, and was given a 0.12% chlorhexidine mouth wash solution and oral analgesics. The patient was followed up at 2, 4, 6 and 8 weeks post surgery, whilst the plastic stent was removed after a period of 6 weeks post surgery (Figure 6).



**Figure 5:** The Bogota style plastic cut and sutured to the surrounding soft tissue whilst offering full coverage of the surgical site.



**Figure 6:** The healing of the palatal mucosa after removal of the plastic stent and BIPP pack (6 weeks).

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## Discussion

When a large palatal PA is resected, the denuded palatal bone requires some form of protective coverage to reduce discomfort and expedite the healing by secondary intention. The traditional method of treating the palate after PA resection, is to mobilise a palatal rotation flap for smaller defects, or for larger defects to apply a pre-fabricated acrylic stent that resembles a Hawley orthodontic appliance. These were more labour intensive as impressions had to be made of the palate prior to surgery. Once the surgery was performed, these acrylic stents would need to be modified in theatre to fit. Making impressions of the palate with larger PA's is challenging; thus by a simple application of the Bogota bag principle, a cheaper, simpler, and accurate method may be used. This technique prevents food from contaminating the site and allows for virtually normal phonetics during the healing phase. With lesions that require some resection onto the soft palate, the plastic stent allows for the soft palate to be sutured to it; thereby providing support and minimising the risk of soft palate prolapse. This technique is a simple but highly effective way of obtaining cheap, reliable treatment outcomes for this type of surgery.

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