

Case Report

A Case Report of Basal Cell Adenoma of Parotid Gland and Literature Review.

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Abstract

Basal cell adenoma (BCA) of the salivary gland is a rare neoplasm consists of a monomorphic population of basaloid epithelial cells with occasional inner ductal epithelial cells, arranged in four different cellular growth patterns, described as solid, trabecular, tubular (tubulo-trabecular) and membranous. BCA accounts for 1–2% of all salivary gland tumours. It is predominantly a tumour of major salivary glands with approximately 75–80% of cases found in the parotid glands and at least 5% in the submandibular glands. The patient has no complaints post operatively and maintained routine follow-ups. The Diagnosis is confirmed by post-operative histopathology report. We report a case of BCA of the parotid gland of 25 year old male.

Keywords: Basal cell adenoma, Parotid Gland, salivary gland tumor, Parotidectomy.

Introduction

Salivary gland tumors (SGTs) are mostly benign tumors with a strong trend for developing in the major salivary glands, mainly the parotid gland. BCA accounts for 1–2% of all SGTs, and clinically, is slow-growing, asymptomatic, and has well-defined boundaries not exceeding 3 cm in diameter. It most frequently develops in adult women older than 50 years. BCA has been acknowledged as a separate entity by World Health Organization (WHO) in the Second Edition of the Salivary Gland Tumours Classification.^{1,2} Several sites have been identified in the literature, with the parotid gland being the most frequently reported, followed by the upper lip, buccal mucosa, lower lip, and palate. BCA usually affects people between their fifth and seventh decades of life.³ The World Health Organization (WHO) classifies benign salivary gland tumors into 11 different types, including basal cell adenoma (BCA).⁴ BCA carries a favorable prognosis in comparison with other salivary gland neoplasms, especially since recurrence is not common.⁵ Here we are discussing about a male patient of 25 years old.

Case Report

A 25 years old male patient unmarried, normotensive, non-diabetic, smoker, hailing from Thengamara, Bogura, was admitted in TMSS Medical College and Rafatullah Community Hospital on 14.01.2023 with the complaints of gradual swelling over the left parotid region for 3 months. The swelling was painless and initially small but gradually increasing in size. There was no history of sudden increase or decrease in size of swelling while chewing food, no difficulty or pain while swallowing. There was no discharge from parotid duct opening, no restrictions on mouth opening, no history of fever, earache or facial paralysis. General and systemic examination revealed no other abnormalities. On local examination revealed a solitary globular swelling, 2×3 cm² in size, over left parotid region. Temperature over the swelling was not raised, it was non tender, and surface was smooth, consistency was firm, well defined margin and border. The swelling was free from overlying skin and not fixed with structures like masseter & Sternomastoid muscle. Temporomandibular joint was normal. Facial nerve function was intact on both side.

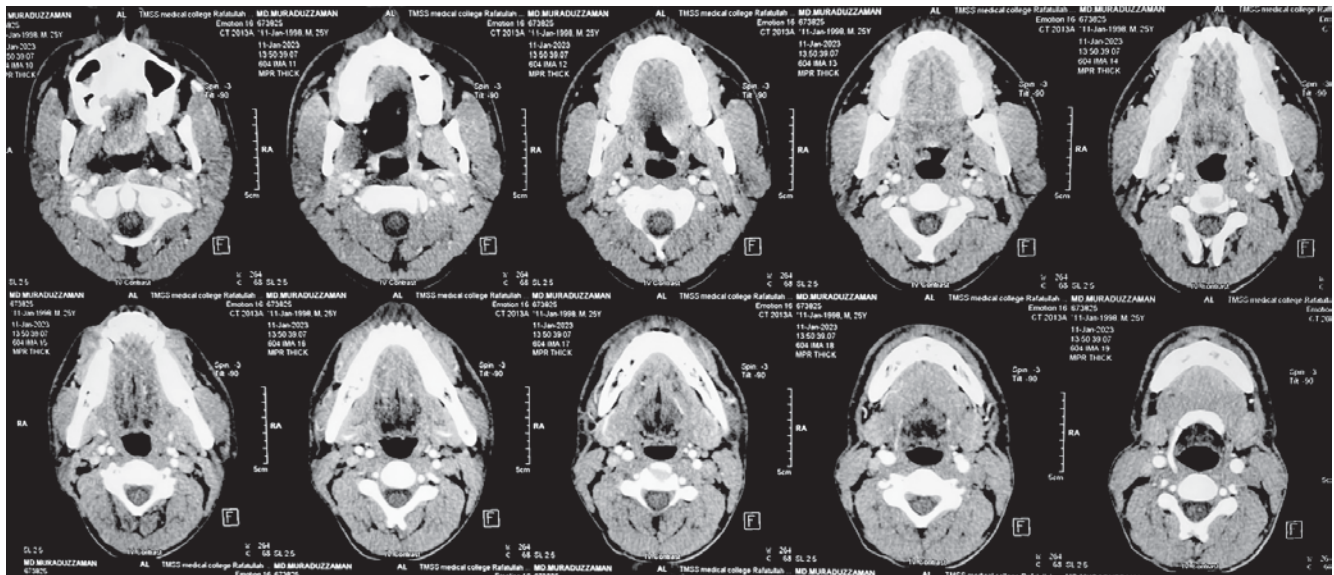


Fig-1: CT scan of Neck shows soft tissue mass in left parotid region.

CT scan of Neck showed irregular enhancing soft tissue mass (2.86 X 2.05 cm) in left parotid. FNAC showed pleomorphic adenoma. A modified Blair incision was given. Tumor mass was excised along with some surrounding normal tissue in the form of superficial parotidectomy. On grossly excised tissue

was about 4x3x2 cm in dimension, firm and whitish in appearance. On histopathology section showed monophasic population of basaloid epithelial cell. Patient was followed up at sixth month, after one year and one and half year. There was no complain of any growth and clinical examination was normal.

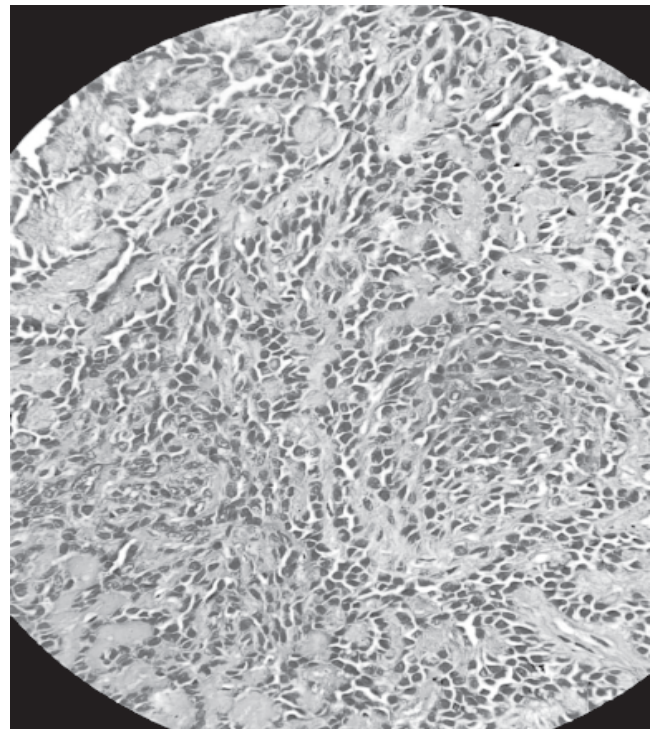
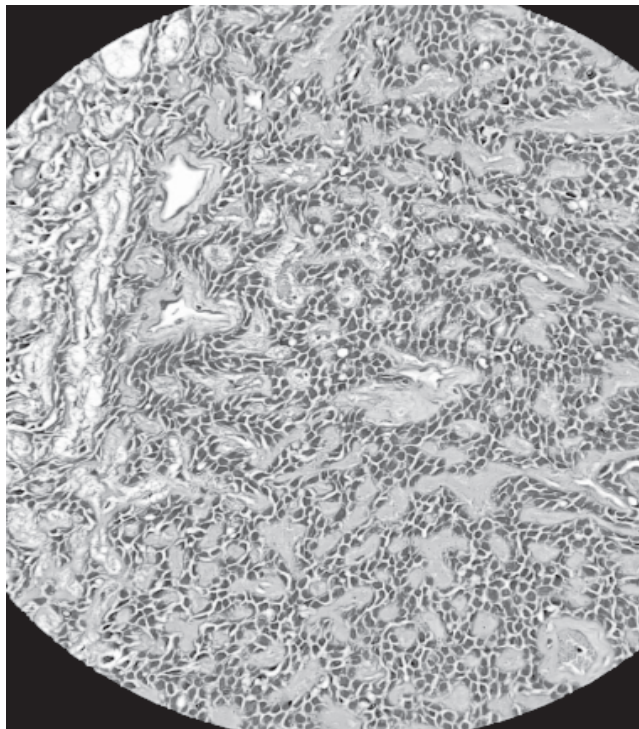


Fig 2: Histopathology of left parotid tumor shows monophasic population of basaloid epithelial cell.

Discussion

Salivary gland neoplasm are mostly benign. Among the benign tumor Plemorphic adenoma is the commonest. The WHO salivary gland tumor classification recognizes the BCA of the salivary glands as an independent entity in its fifth edition ⁴. The large majority of all parotid tumors are of benign nature, with pleomorphic adenoma being the most common type. On the other hand, monomorphic adenomas, including basal cell adenomas, are much less common and rarely reported.⁵ Among the “monomorphic adenomas,” there are the following varieties: Warthin’s tumor or papillary cystadenoma lymphomatosum, oncocytoma or oxyphilic adenoma, BCA, canalicular adenoma, and sebaceous adenoma.⁶ Basal cell adenoma (BCA) is a rare benign epithelial tumor of the salivary gland displaying monomorphic basaloid cells and luminal epithelial cells without a myxochondroid component. BCA is synonymous with monomorphic adenoma, basaloid salivary gland adenoma and membranous adenoma, also called dermal analogue tumor.⁷ The pre-operative cytodiagnosis is extremely challenging and can be misleading as they mimic several benign and malignant salivary and non-salivary gland tumors, necessitating a thorough histopathological examination. Since BCA and basal cell adenocarcinoma share similar histopathological features, it can sometimes be difficult to distinguish them from one another. However, the latter generally presents with the invasion of the surrounding structures.^{2, 4} In our patient the cytology report was Pleomorphic Adenoma. But Histology showed Basal cell adenoma charecterised by monophasic population of basaloid cells.

The characteristic peripheral palisading that is seen in basal cell adenoma is not seen in pleomorphic adenoma. Histologically BCA are characterized by the absence of myoepithelial cells and the chondro-myxoid stroma of pleomorphic adenoma. The diagnosis of this entity must be established by careful histological study. ⁸ The principal treatment modality for BCA is same as that of any other benign salivary

gland tumours. Surgical excision is the treatment of choice either a superficial or total parotidectomy. On the other hand adequate local excision of nodule is superior to enucleation.⁹ It is known that BCA can transform to Basal cell adenocarcinoma in about 24% cases.⁸ Hence it is advised that during the excision, the capsule of the nodular swelling is kept intact at all point of time in order to minimize recurrence.⁶ But the best surgical approach for such rare tumors is still unclear. Some authors recommended parotidectomy or local excision depending on tumor size (more or less than 4 cm) and extraglandular tumor extension.¹⁰ In our patient we have done superficial parotidectomy with intact capsule of the tumor. It is not easy to detect the malignant transformation of BCA as the clinical, radiological, and histological features differentiating adenomas (including BCA) from basal cell carcinoma are difficult to separate by ordinary studies alone, even after excision and microscopic examination, as both benign and malignant lesions are composed of basaloid cells with different grades of atypia.^{11, 12}

We have maintained the standard procedures for pre-operative diagnosis, treatment and post-operative tissue diagnosis with follow-up of patient as stated in different literatures. Overall with adequate surgical excision and regular follow-up the prognosis of BCA is good.

Conclusion

BCA is a very rare benign tumor. As the tumor is seen in fifth and sixth decade of life, it must be differentiate from malignant tumor. Long-term follow-up and more research are indeed necessary to prevent recurrence and improve the prognosis in this group of patients.

References

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