

# Basal Cell Adenoma of Parotid Gland: Uncommon Entity

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**Abstract:** Basal cell adenoma is a rare benign neoplastic lesion. It is very challenging to diagnose basaloid tumors predominantly basal cell adenoma of the salivary gland. The most frequent region is at the parotid gland even though other sites are possible. It represents 1-3% of all cases of salivary gland neoplasms seen affecting patients between their fifth and seventh decades (predominant in females). A 65 years old, Malay male with left parotid mass for investigation presented with left infra-auricular swelling. On examination, noted a palpable mass over the infra-auricular region. A contrasted Computed Tomography (CT) Neck noted left parotid lesion with a single lymph node which may represent necrotic node. Subsequently proceeded with excision of left intra-parotid mass and was sent for a biopsy. Biopsy revealed, basaloid salivary gland neoplasm which the overall morphology favored basal cell adenoma. Basal cell adenoma, is a rare case which has been rarely reported in both local and international literatures. This case write up is done to enlighten regarding the incidence, natural history and outcome of this disease.

**Keywords:** Basal cell adenoma, salivary gland tumor, parotid gland, benign neoplasm, biopsy results

## 1. Introduction

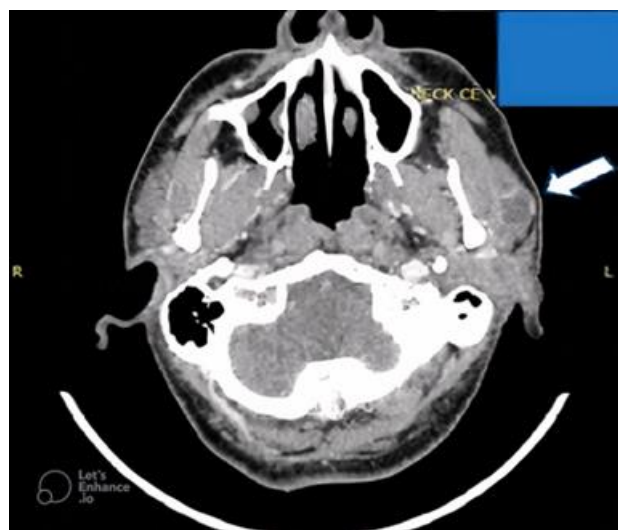
Basal cell adenoma of the salivary glands is an exceptional type of monomorphic basaloid cells. Its most frequent region is at the parotid gland [1,2]. It represents 1-3% of all cases of salivary gland neoplasms seen affecting patients between their fifth and seventh decades [1]. This type of tumour is normally benign and has a good prognosis [2]. It is a mobile firm or elastic slow-growing mass [2,3]. Patients are asymptomatic in majority of cases. The use of imaging modalities to assist in diagnosis is used before deciding on treatment options. Computed Tomography (CT) scan and Magnetic Resonance Imaging (MRI) are two of the standard imaging modalities used [4]. The diagnosis relies on the histopathological examination of the obtained biopsy as the gold standard, although Fine Needle Aspiration Cytology (FNAC) is another acceptable alternative [5].

## 2. Case Presentation

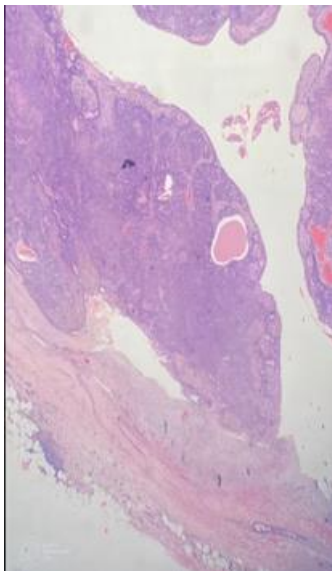
A 65 years old, Malay male with no comorbid but known chronic smoker presented with painless left infra-auricular swelling for 2 weeks. No facial asymmetry, ear or nasal symptoms.

On examination, he was alert and conscious. All vitals were normal. Upon examining, noted left infra-auricular swelling measuring 2x2cm which is non tender. The overlying skin not tethered. All other findings were unremarkable. FNAC yielded minimal hemoserous material. Thereafter, the samples were sent for fluid culture and sensitivity, cytology and acid fast bacilli stain. All results came out to be negative. A contrasted CT Neck, reported a well-defined rim enhancing hypodense lesion seen in the superficial part of the left parotid gland measuring 1.2x1.3x1.2cm (Figure 1). No enhancing component within the lesion.

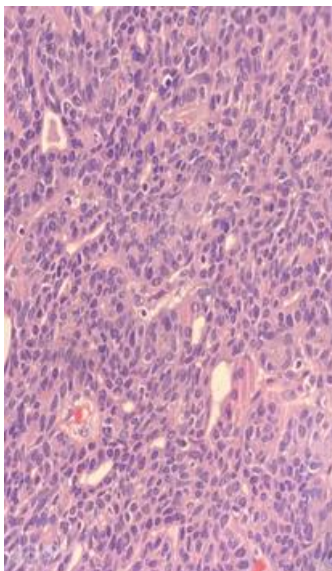
He was then scheduled for an excision biopsy of left parotid mass under general anesthesia. Biopsy revealed, basaloid salivary gland neoplasm which the overall morphology favored basal cell adenoma (Figure 2,3,4). Post operative, patient's recovery was uneventful and is free from complications with no recurrence or residual (Figure 5).



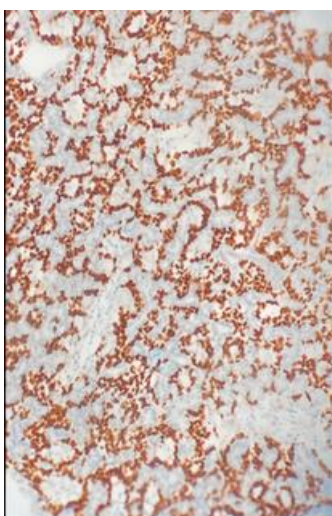
**Figure 1:** A contrasted CT Neck, Axial view, soft tissue window, showing well-defined rim enhancing hypodense lesion seen in the superficial part of the left parotid gland measuring 1.2x1.3x1.2cm. No enhancing component within the lesion.



**Figure 2:** Microscope BX43, Under magnification x10; Well circumscribed basaloid solid-cystic tumor.



**Figure 3:** Under magnification x20; Basaloid cells arranged in tubular and solid pattern



**Figure 4:** Under magnification x20; The basaloid cells are immunoreactive for p63 immunostains



**Figure 5:** Show a post operative scar which has healed well

### 3. Discussion

Basal cell adenoma of the salivary glands is an exceptional type of monomorphic basaloid cells. Its most frequent region is at the parotid gland even though other sites are possible, such as the upper lip, buccal mucosa, lower lip, palate and nasal septum [1,2]. It represents 1-3% of all cases of salivary gland neoplasms seen affecting patients between their fifth and seventh decades (predominant in females) and is rare in young adults [1]. This type of tumour is deemed to be quite benign and has a good prognosis [2].

It is a mobile firm or elastic slow-growing mass [2,3]. Patients are asymptomatic in majority of cases. The use of imaging modalities to assist in diagnosis is used before deciding on treatment options. CT scan and MRI are two of the standard imaging modalities used. While a CT scan would show a well-demarcated and well enhanced inhomogeneous mass to the muscle in the deep lobe of parotid gland, without any definite cystic or necrotic components, MRI would reveal homogeneous signal intensity of the solid portion of the tumour with the well-circumscribed, low-signal-intensity rim of the tumour capsule on T2-weighted images [4,6].

The diagnosis relies on the histopathological examination of the obtained biopsy as the gold standard, although FNAC is another acceptable alternative. Physical access to the tumour must first be ensured in patients with FNAC, although it is not as precise as a biopsy. The defining features of such a tumour are uniform and regular basaloid cells, upon histological examination of the tissue specimen [5].

The subtypes of this tumour are the solid, trabecular, tubular and membranous. Moreover, this slow growing encapsulated tumour does not exceed 3 cm in diameter [7]. The presence of a basaloid cell layer, consisting in the stockade pattern and rounded out by an hyaline substance is typical. This type of tumour has been described as having the absence of myoepithelial cells, which are found in benign mixed tumours and other neoplasms of the salivary gland [2].

While membranous subtypes necessitate parotidectomy, basal cells adenomas can be eliminated with local excision or superficial parotidectomy. The solid and trabecular-tubular forms have almost no recurrence rate. The membranous form has a high recurrence rate (24%) which may be a result of the

multicentricity of this disease. Although exceedingly rare, malignant transformation is more common in the membranous type than in the other types which is about 5% [3,4].

#### 4. Conclusion

Basal cell adenoma is a rare, benign, slow growing tumor of the parotid. This disease responds well with surgical excision, has very low risk of recurrence and malignant transformation.

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