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CASE REPORT: A RARE CASE OF PRIMARY PAROTID GLAND SQUAMOUS CELL CARCINOMA

General Surgery

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ABSTRACT

Parotid gland Squamous cell carcinoma is very tumour with incidence of 0.3% to 1.5%. Proper examination and investigation are needed to diagnose this tumour. Here we reported a case of primary parotid squamous cell carcinoma in a 75 years male. Preoperatively fine needle cytology suggestive of keratin cyst or well differentiated squamous cell carcinoma. Operated with superficial parotidectomy. Histopathology suggestive of primary parotid squamous cell carcinoma. It's very aggressive type of tumour, so it needs adequate approach with multimodality treatment methods.

KEYWORDS

Parotid Gland, Squamous Cell Carcinoma, Salivary Gland, Preoperative, Postoperative, Parotidectomy

INTRODUCTION:

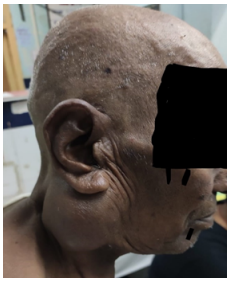
Parotid gland tumours are histologically diverse group of neoplasm which show wide spectrum of biological behaviour. Primary Squamous cell carcinoma originating from parotid gland is very rare. Incidence of squamous cell carcinoma of parotid gland is 0.3% to 1.5% (1). Primary squamous cell carcinoma of parotid gland is also known as Primary Epidermoid carcinoma (2 &3). Most of the salivary gland tumours are seen in parotid gland. Widely postulated risk factor for salivary gland tumour is Ionizing radiation (3).

In this article, we are going to report a case of primary parotid squamous cell carcinoma. Purpose (aim) of this case report is to review our experience in management of the case of primary parotid gland squamous cell carcinoma.

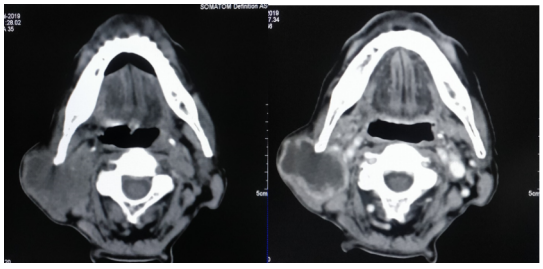
OBSERVATION:

A 75 years male patient presented with swelling in front and below the right ear (right parotid region) since last two year. Initially it was of size approximately 2*3 cm. It was insidious in onset and gradually progressive. But since last 6 months, swelling rapidly increased in its size and became size of 8*5 cm. No history of pain or difficulty in mastication, facial asymmetry, drooling of saliva, fever. No history of swelling in the opposite side (left parotid region). No other swelling elsewhere in the body. No history suggestive of Tuberculosis like evening rise body temperature, cough. No history suggestive of any primary in the upper aero-digestive track. No history suggestive any metastasis. No history of weight loss and anorexia. And patient is known case of well hypertensive, well controlled on antihypertensive medication. No other associated comorbidities. No history of previous surgeries. No history cancer related morbidity or mortality in his family.

On examination patient was well hydrated and averagely built on the account of Body mass index 23. On examination of right parotid area, there was solitary hard swelling of size 8*5*2 cm in right parotid area with well-defined margins. Swelling fixed to underlying structure. Facial nerve examination was intact. Temporal-mandibular joint movements normal. No evidence of parotid deep lobe enlargement (on per oral examination). Preoperative image and CECT images are as follows,



Preoperative Image



Contrast enhanced CT images

Contrast enhanced computerised tomography (CECT) head and neck suggestive of right side Bronchial cyst. Oesophagogastro-dedunoscopy (OGD) was done and was normal. Fine needle aspiration suggestive of ? Keratin Cyst Or ? Well differentiated Squamous cell carcinoma (unknown origin). Then patient prepared for surgery. Lazy S shaped incision taken and dissection done layer by layer. Intraoperative findings suggestive of hard solitary swelling arising from superficial lobe right parotid gland. Swelling infiltrated the underlying muscles also (masseter, sternocleidomastoid). Then superficial parotidectomy done along with entire swelling excision. Other structures were normal. Then incision closed layer by layer with drain.

In post-operative course patient had facial asymmetry and deviation angle of mouth to right side, due to neuropraxia and recovered in a week with steroid course. Histopathology report suggestive of right sided parotid squamous cell carcinoma. So, Radical parotidectomy with adjuvant therapy has to be given to the patient as part of completion of treatment.

DISCUSSION:

Little is known about the total incidence of salivary gland tumours as most benign tumours are not recorded in National Cancer Register (4). The majority of the salivary gland tumour are benign 65%-70%. In that, parotid gland 75%-80% of tumours are benign (5). Most common benign tumour of the parotid gland is Pleomorphic Adenoma. And malignant tumours are classified as low and high grade malignant tumours. Most common malignant parotid tumour is Mucoepidermiod Carcinoma (6).

Table number 1-Classification of salivary gland tumours

Type	Examples
1. Adenoma	Plemorphic adenoma, adenolymhoma
2. Carcinoma	Low grade - Acinic cell carcinoma, adenoid cystic carcinoma, low grade mucoepidermoid carcinoma. High-grade- Adenocarcinoma, Mucoepidermoid carcinoma, Squmous cell carcinoma

3. Non-epithelial tumours	Haemangioma, Lymphangioma
4. Lymphomas	Primary- Non-Hodgkin's lymphoma Secondary- Lymphomas in Sjogen's syndrome.
5. Secondary Tumours	Local - Tumours of head and neck Distant- Tumours of bronchus and skin
6. Unclassified Tumours	
7. Tumour like lesions	Solid lesions- Benign lympoepithelial lesion Adenomatoid hyperplasia Cystic lesions- Salivary gland cysts

(Courtesy- Bailey and Love's, Short Practice of Surgery, 27th edition, page number 789.)

Incidence of Parotid Squamous cell carcinoma (SCC) is 0.3%-1.5%. Most commonly SCC is metastatic to parotid gland from cutaneous malignancy of scalp and face (7). Direct invasion of parotid gland also occurs from carcinoma of external ear or pre-auricular skin. Incidence of metastatic cancer in parotid gland is less than 10%. Among this, 40% are SCC in parotid glands (8). So when parotid SCC is identified efforts must be made to find primary aetiology. If no other primary lesion identified then it is logical to consider the primary parotid SCC (9).

In study by Ying YL et al, 66 patients were identified with parotid SCC, among this 41 (62%) patients had metastasis SCC from other known primary sites. 16 (24%) patients had primary parotid SCC and 9 (14%) patients were undetermined. In that study, disease outcome rate for the patients with primary parotid SCC or metastatic parotid SCC treated with Surgery alone was not statistically different from those treated with surgery and postoperative radiotherapy (9). Khurana et al. study also had same consistent finding (10). So surgery alone or surgery and postoperative adjuvant therapy treatment will be accepted. Recurrence rate is 8% to 51% for both primary and metastatic parotid SCC (11).

Postoperative complications parotid surgery include facial nerve injury, parotid fistula, haemorrhage, flap necrosis. Prognosis depends on clinically palpable neck lymph nodes, grade, and surgical margins.

CONCLUSION:

Parotid SCC is rare entity. It can be primary or metastatic. So proper examination and investigation is needed to find out extra-parotid primary lesion before labelling as Primary Parotid SCC. And parotid SCC is very aggressive so it should be treated as early as possible with multiple approach (surgery and adjuvant therapy).

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