

## A Clinical Series of Rare Cases of Synchronous Malignancies in Male Patients at Our Institute.

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### I. Cancer Esophagus With Renal Cancer

#### INTRODUCTION

Synchronous malignancies with an esophageal malignancy are not uncommon. However synchronous esophageal and renal cell carcinoma (RCC) is rare with only 11 cases reported in the world literature, the esophageal malignancies being adenocarcinomas or squamous cell carcinomas. SCC of the esophagus is an aggressive malignancy with poor prognosis constituting 0.8–2.4% of all esophageal malignancies.

The occurrence of synchronous malignancies with an esophageal malignancy is a well-described phenomenon with an incidence ranging from 3.6 to 27.1% , most commonly situated in the upper aero-digestive tract [1].

Radical nephrectomy for the RCC may also result in renal dysfunction limiting the chemotherapeutic options for the esophageal malignancy.

#### CASE HISTORY

A 70 yr male visited surgery OPD at our institute with clinical complaint of Dysphagia to solid food since 3 months.

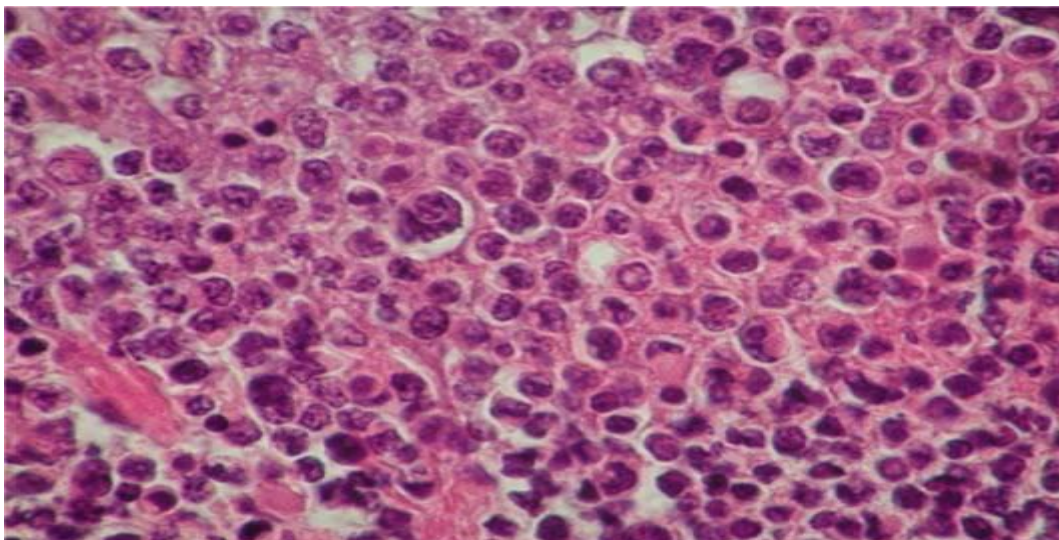
CT scan chest done on 11/7/18 was s/o solid oval homogeneously enhancing lesion of size 40 x 29 x 29 mm noted in tracheo - esophageal groove at the level of arch of aorta and extending upto carina. Anteriorly, the lesion is seen causing displacement of trachea and posteriorly, causing significant luminal narrowing of esophageal wall. Fat planes between the lesion and adjacent arch of aorta is well maintained . Heterogeneously enhancing discrete, non - necrotic enlarged lymph nodes noted in prevascular region largest of size 12 x 9mm.

CECT Abdomen and Pelvis done on 25/7/18 was s/o 3 x 2.8 cm well defined heterogeneously enhancing lesion at the upper pole of right kidney deforming the Focal Renal Contour s/o neoplastic etiology likely Renal cell carcinoma.

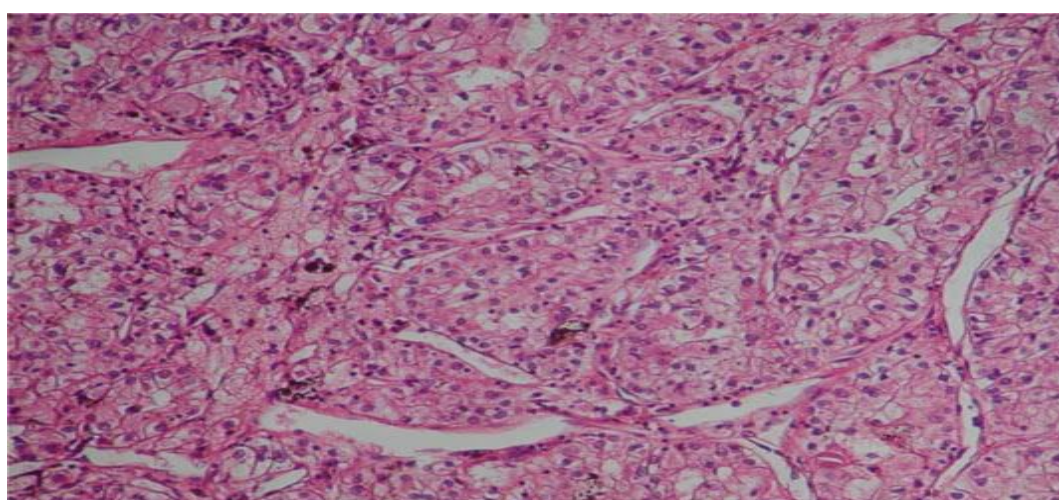
Whole Body PET-CT imaging done on 21/8/18 was s/o FDG avid homogeneously enhancing asymmetric short segmental thickening in thoracic esophagus at the level of arch of aorta and extending upto carina indenting the posterior tracheal wall and causing significant esophageal luminal narrowing ( lesion measures 4.8 x 3.4 x 3.2cm , SUV max 27.7). Abnormal minimally increased FDG tracer uptake seen enhancing discrete prevascular , left paratracheal, AP Window, subcarinal and para - esophageal lymph nodes largest measuring 1.2 x 1.1cm (SUV Max 4.6). Abnormal minimal increased FDG tracer uptake noted in moderately enhancing complex cystic lesion with exophytic extension involving upper pole of right kidney measuring 2.8 x 2.7 cm (SUV Max 2.9). No evidence of any other FDG avid lymph nodal/ distant metastatic lesions.

Oesophago gastroscopy done on 25/8/18 was s/o constricting growth in upper 1/3rd esophagus of about 5cm. Multiple Biopsies taken . **Biopsy from esophageal growth was s/o squamous cell carcinoma grade I (Fig.1)**

As per all investigation reports patient underwent right radical nephrectomy on 4/9/18 for right renal mass. **HPR was s/o clear cell renal cell carcinoma (Fig 2)** pT = 2.5 x 2.5 x 2 cm . Ureter, hilar vessels, renal sinus, pelvicalyceal system free of tumour , adjacent renal parenchyma, renal capsule, Gerotas fascia and lymph nodes were free of tumour.



**Fig.1** Biopsy of esophageal mass demonstrating SCC at high power magnification



**Fig 2** Nephrectomy specimen showing renal cell carcinoma

Now the patient is planned with 3D conformal Radiotherapy to mediastinum 60 GY /30 # / 6 wks , cord off @ 40 - 45 Gy with chemotherapy injections paclitaxel 100 mg and carboplatin 100 mg weekly for 6 wks. Patient received concurrent chemoradiation from 1/10/18 to 3/12/2018..Long term disease free survival and progression free survival is under assessment.

### **Discussion**

In esophageal cancers associated with other primary cancers, the prognosis is primarily determined by the esophageal cancer itself with 5-year survival rates significantly worse than those of patients with solitary esophageal cancer [2]. It is also important to differentiate a renal metastasis from a primary RCC to determine a surgical approach for the renal mass. The synchronous occurrence of an esophageal malignancy and an RCC could be due to an ingested carcinogen which is excreted by the kidney, exposing both the esophagus and the kidney to the carcinogen.

### **References**

- [1]. De Hingh IHJT, Van Berge Henegouwen MI, Laguna Pes MP, Busch OR, Van Lanschot JJ. Synchronous esophageal and renal cell carcinoma: incidence and possible treatment strategies. *Dig Surg.* 2008;25:27–31.
- [2]. Kumagai Y, Kawano T, Nakajima Y, et al. Multiple primary cancers associated with esophageal carcinoma. *Surg Today.* 2001;31:872–876.

## **II. Case II And Case III (Synchronous Head And Neck Cancers)**

### **INTRODUCTION**

Patients with head and neck carcinomas have high incidence (2–3% per year) of second primary lesions[1]. Synchronous carcinomas are defined as second neoplasms at the same time or within 6 months period of primary lesions. After this period, they are considered as metachronous neoplasms. Tumors composed exclusively or in large part of clear cells are rare in salivary glands, jaws and oral mucosa.

Head and neck squamous cell carcinomas (HNSCCs) are a major cause of death worldwide. Patients with the criteria to identify synchronous tumors defined by Warren and Gates and Moertel *et al.*[2] include the following: (A) all the tumors had to be histologically malignant; (B) all had to be distinct masses separated by normal tissue (at least by 2 cm); and (C) the possibility that the tumors could be metastatic had to be excluded histologically.

Histologically, the OSCC is composed of sheets, nests or cords of squamous cells invading the connective tissue. In well-differentiated squamous cell carcinomas, cells resemble obvious origin from squamous epithelium and individual cell keratinization or keratin pearls are characteristic features. The less and poorly differentiated squamous cell carcinoma cells bear little resemblance to their cells of origin. The cells show greater variation in size and shape, increased/abnormal mitotic figures and greater lack of cohesiveness. The cells fail to carry out function of a differentiated squamous cell, i.e. the formation of keratin. Clear cells, as the name suggests, are cells having a clear halo around their nuclei and are characterized microscopically by failure of their cytoplasm to stain with hematoxylin and eosin. Tumors composed exclusively or in large part of clear cells are rare in salivary glands, jaws, and oral mucosa.

### **CASE II CANCER TONGUE WITH CANCER PALATE**

#### **CASE HISTORY**

A 40 yrs male presented in surgery OPD with clinical complaint of lesion over tongue and palate since 2 months.

- **Biopsy from Tongue (29/6/18) - Squamous cell carcinoma grade II (Fig 3)**
- **Biopsy from right palate (29/6/18) -Squamous cell carcinoma grade III (Fig 4)**

CECT Neck on (9 / 7 / 18) was s/o

- Ill defined heterogeneously enhancing lesion of size 5.2 x 3.5 x 3.6 cm in Right Lateral Border of Tongue indenting over median raphe. It is extending superiorly to involve soft palate and hard palate with destruction of hard palate on right side. Anteriorly, it is causing destruction of mandible and extending in to right inferior gingivobuccal sulcus s/o neoplastic lesion.
- Few enlarged cervical lymph nodes are noted at level I a, largest measuring 1.8 x 1.6 cm.
- Few Sub centimeter sized soft tissue nodules in Right lung Parenchyma.

**Patient has undergone WLE with MRND with primary closure with hemipalatectomy on 15/7/18.**

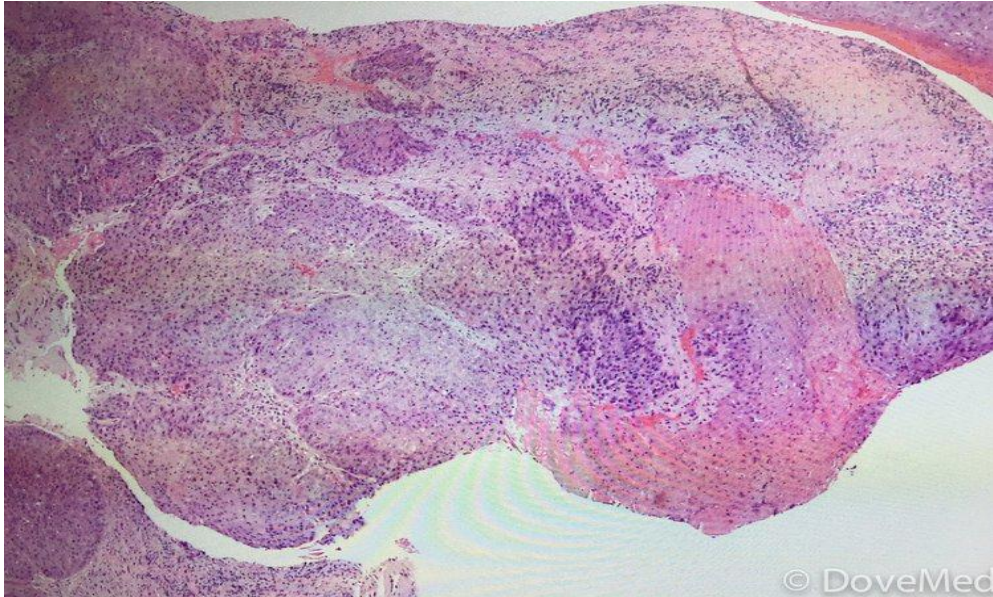
HPR :-

#### **Specimen Tongue-**

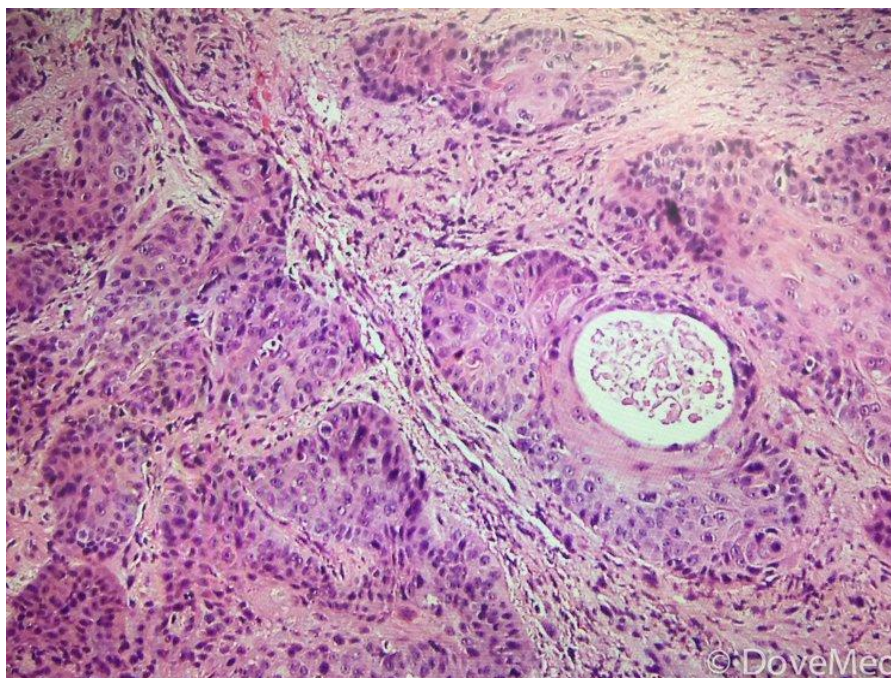
- **Moderately differentiated squamous cell carcinoma invading muscles**  
(T = 1.7 x 1.5 x 0.5 cm)
- No perineural and vascular invasion
- All cut margins and base free of tumour
- Depth of invasion - 0.5 cm, worst pattern of invasion pattern 4

#### **Specimen Right Palatectomy –**

- **Well differentiated squamous cell carcinoma**  
(T = 1.5 x 1.4 x 1 cm)
- No perineural and vascular invasion
- All cut margins and base free of tumour
- Parotid tail – 0/2+ve
- Facial Node – 0/1+ve
- Right level II, III, IV, & sternocleidomastoid – Necrotic nodal mass show tumour deposits ,0/16+ve & muscles free of tumour
- Right level V – 0/12+ve



**Fig 3.** Tongue mass showing squamous cell carcinoma



**Fig 4.** Palate biopsy show squamous cell carcinoma

**TREATMENT PLAN-**

RADIOTHERAPY WITH INTENSITY MODULATED RADIOTHERAPY(IMRT) TECHNIQUE FACE AND NECK with OAR constraints

GTV dose 70 Gy / 35# / 7 – 8 wks

CTV 60 Gy / 30 #/6-7 wks

PTV 50 Gy / 25 #/5-6 wks

With chemotherapy injection cisplatin 50 mg wkly for 6 wks. Patient received concurrent chemoradiation from 16/08/18 to 15/10/18. Follow up CECT was normal. Long term disease free survival and progression free survival is under assessment.

## References

- [1]. Bedi GC, Westra WH, Gabrielson E, Koch W, Sidransky D. Multiple head and neck tumors: Evidence for a common clonal origin. *Cancer Res.* 1996;56:2484–
- [2]. Dissanayaka WL, Jayasooriya PR, Kumarasiri PV, Tilakaratne WM. A histopathologic comparison between synchronous and single primary oral squamous cell carcinomas. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2010;109:73

## CASE III

### CANCER TONGUE WITH CANCER RETROMOLAR TRIGONE

#### CASE HISTORY

A 40 yrs male patient visited at surgery department in our institute with clinical complaint of difficulty in mouth opening since 6 – 7 months with ulcer over oral mucosa.

CT TM joint with contrast was done on 17/5/18 showing minimal sclerotic changes in the condyloid processes. TM Joints spaces were normal.

#### **Biopsy from Right Retromolar Trigone done on 13/6/18 was s/o moderately differentiated squamous cell carcinoma.**

CECT Neck on 20/6/18 was s/o ill defined minimally enhancing soft tissue lesion of size 17 x 7 x 30 mm noted in Right Retromolar triangle. Anteriorly, it is abutting alveolar part of maxilla, medially abutting hard palate, superiorly abutting pterygoid fossa. No obvious bony erosion or bony destruction .

Biopsy from Right lateral Border of Tongue on 27/9/18 - s/o evidence of ulcero inflammatory lesion with granulation tissue with free margins. No evidence of malignancy was there.

Patient undergone Right Bite composite resection Right MND (I - V) + PMMC done on 16/8/18 with Revision of margin done on 18/9/18. WLE of the margin of tongue and base approx 1cm.

HPR Specimen :-

#### **Bite composite Resection**

- **moderately differentiated squamous cell carcinoma** (T = 1.5 x 1 x 0.8 cm.)
- Depth of invasion 0.8 cm
- All margins, underlying Bone free of tumour
- No perineural and lymphovascular invasion
- Upper Alveolar and lower alveolar Bony cut margins are free of tumour

#### **Right lateral Border of tongue.**

- **Moderately differentiated squamous cell carcinoma invading muscle**
- WLE - 2.5 x 1.5 x 0.8 cm , T = 1.5 x 0.7 x 0.6 cm , Base is ~ 1mm on mucosal surface.
- Depth of invasion 0.4cm from tumour however free of tumour
- All margins are free of tumour
- No perineural and lymphovascular invasion seen
- Level IB 0/3+ve , II A - 0/7+ve ,IV - 0/15+ve ,V- 0/4+ve ,SCM -0 /3+ve
- Revised posterior medial margin of tongue free of tumour

Ca BM Right PT2 No Mo

Ca RLB Tongue PT1 No Mo

#### **TREATMENT PLAN-**

RADIOTHERAPY WITH INTENSITY MODULATED RADIOTHERAPY (IMRT) Face and neck with OAR constraints.

- Primary : 60Gy/30#/6-7 wks
- Neck : 50Gy/25#/5-6 wks
- Patient received radiation from 25/10/18 to 26/12/18. Follow up CECT was normal with post radiation changes. Long term disease free survival and progression free survival is under assessment
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