Unusual Presentation of Supraglottic Larynx Carcinoma with Inguinal Node Metastasis

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ABSTRACT

A 60 yr male presented with carcinoma supraglottic larynx. He underwent neoadjuvant chemotherapy followed by radical concurrent chemoradiotherapy. After 9 months he developed distant metastasis to inguinal node.

INTRODUCTION

Laryngeal cancer is the second most common head and neck mucosal cancer. Although supraglottic and glottic lesions tend to remain confined to their original compartments, there is no anatomic barrier to growth from one area to the next. Glottic lesions tend to be slow growing, but as they increase in size, they extend to the supraglottic and subglottic areas. Supraglottic lesions do not often start near the vocal cords. Involvement of the cords on their external epithelial surface is a late phenomenon, but submucosal extension by way of the paraglottic space occurs earlier. The fat space is an important avenue of submucosal tumor spread for infrahyoid epiglottis, false cord, and true vocal cord lesions. As the false cord and the true vocal cord lesions penetrate anteriorly and laterally, they quickly encounter the tough perichondrium of the thyroid cartilage and may eventually be shunted by the conus elasticus (lateral cricothyroid membrane) out of the larynx via the cricothyroid space. Thyroid cartilage invasion usually occurs in the ossified section of the cartilage, commonly in the region of the anterior commissure tendon or the junction of the anterior one-fourth and the posterior three-fourths of the thyroid lamina. Fixation of the vocal cord from laryngeal cancer is usually caused by invasion or destruction of the vocal cord muscle, invasion of the cricoarytenoid muscle or joint, or, rarely, invasion of the recurrent laryngeal nerve. Perineural spread is uncommon.

The disease spreads mainly to level II nodes. The level Ib nodes are rarely involved, and there is only a small risk of level V lymph nodes being involved. The incidence of clinically positive nodes is 55% at the time of diagnosis; 16% are bilateral. Elective neck dissection shows pathologically positive nodes in at least 16% of cases; observation of initially node-negative necks eventually identifies the appearance of positive nodes in 33% of cases. The risk of late-appearing contralateral lymph node metastasis is 37% if the ipsilateral neck is pathologically positive, but the risk is unrelated to whether the nodes in the ipsilateral neck were palpable before neck dissection.

The incidence of clinically positive lymph nodes at diagnosis for vocal cord carcinoma approaches zero for T1 lesions and is <2% for T2 lesions, but it increases to 20% to 30% for T3 and T4 lesions.

Case Report-A 60 years old male presented with Difficulty in swallowing x 3 months, change in voice x 1 month

Local Examination: - Inspection- Mouth opening-3 fingers

Hygiene- tobacco-stained teeth +

Tongue protrusion +

Uvula and Posterior pharyngeal wall-Clear

Laryngeal Crepitations+

Biopsy -Poorly differentiated squamous cell carcinoma

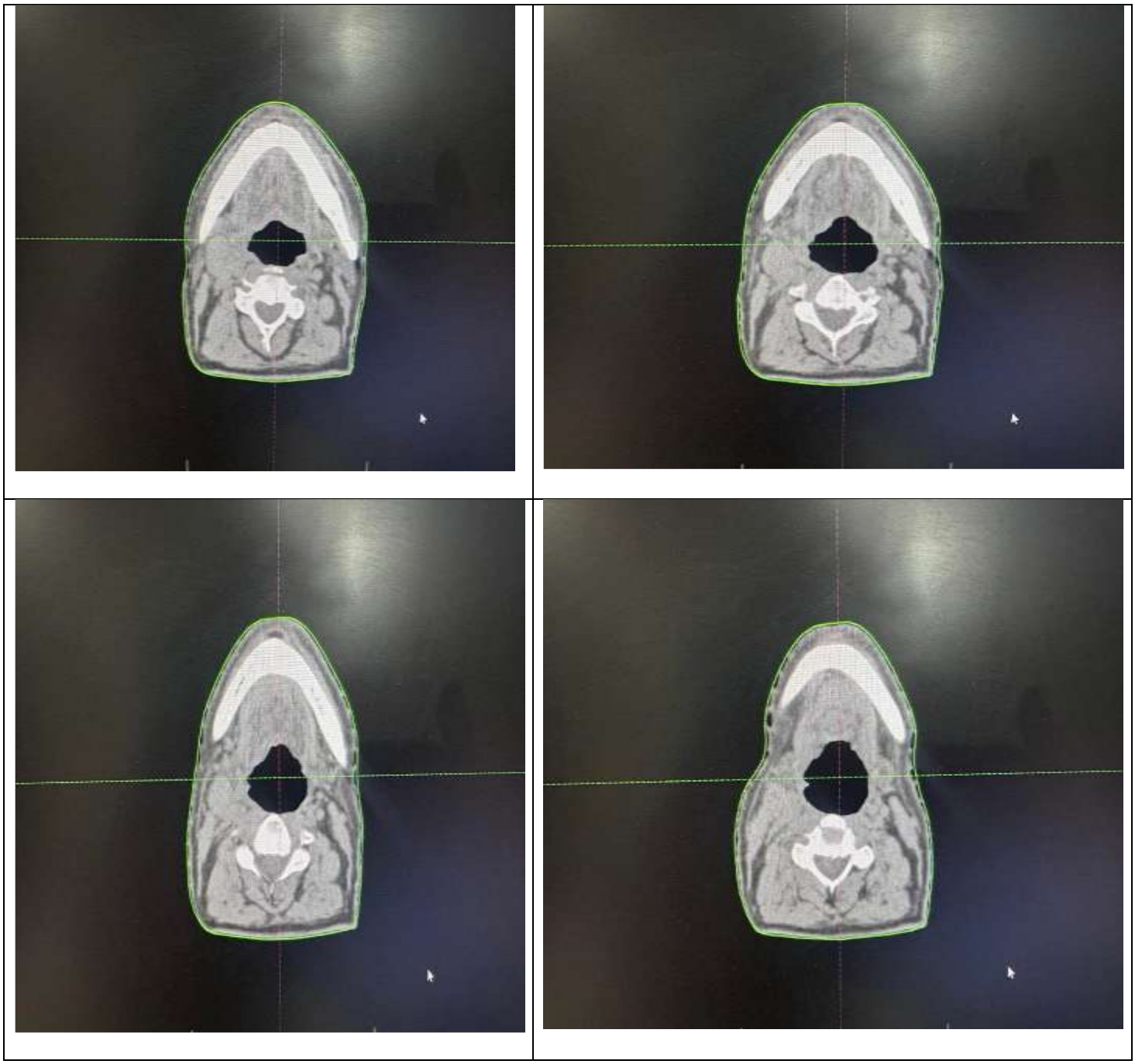
Fiberoptic laryngoscopy -Bulky proliferative mass + over right aryepiglottic fold, extending into right pyriform sinus- medial, apex and lateral wall mass+ over left aryepiglottic fold with bulky overhang. Glottis not visualized Right pre-epiglottic fold involved

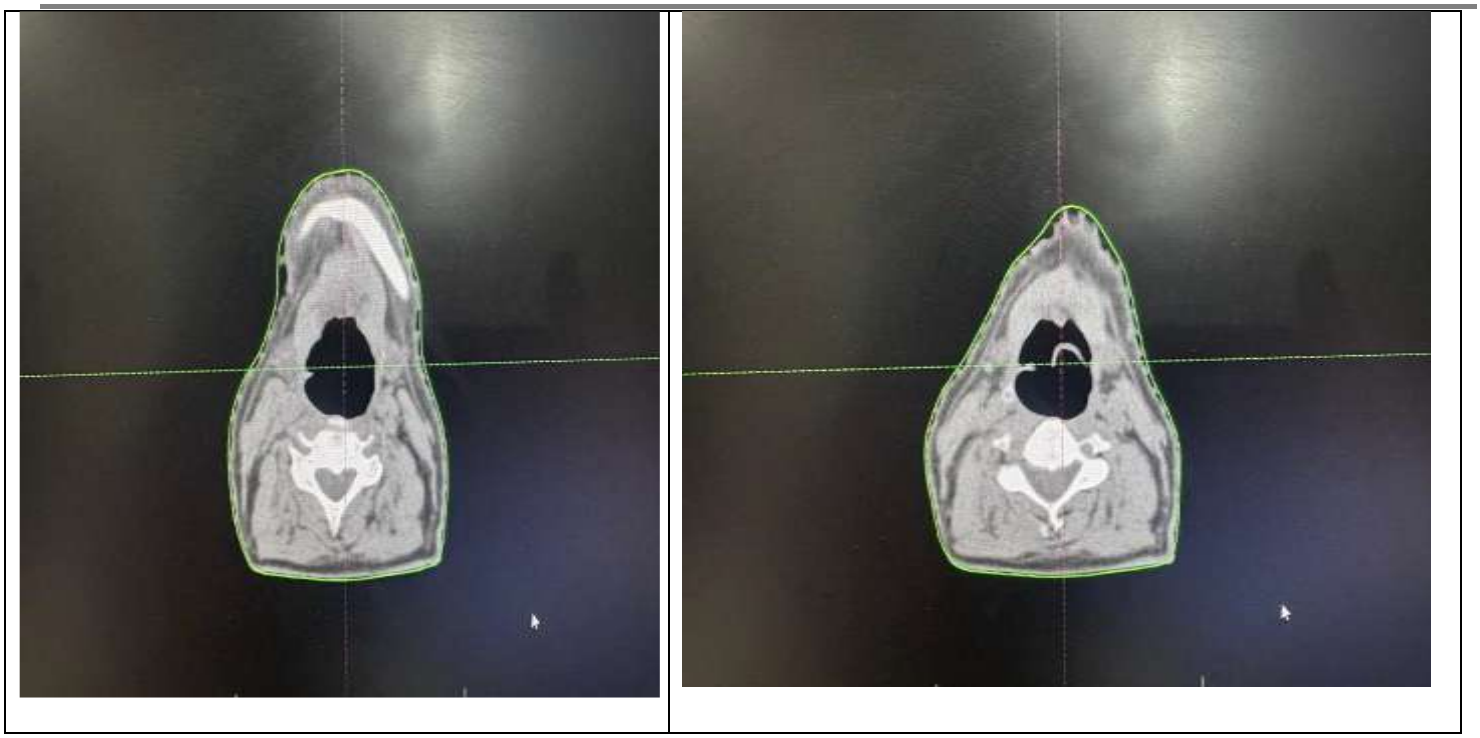
CT scan:

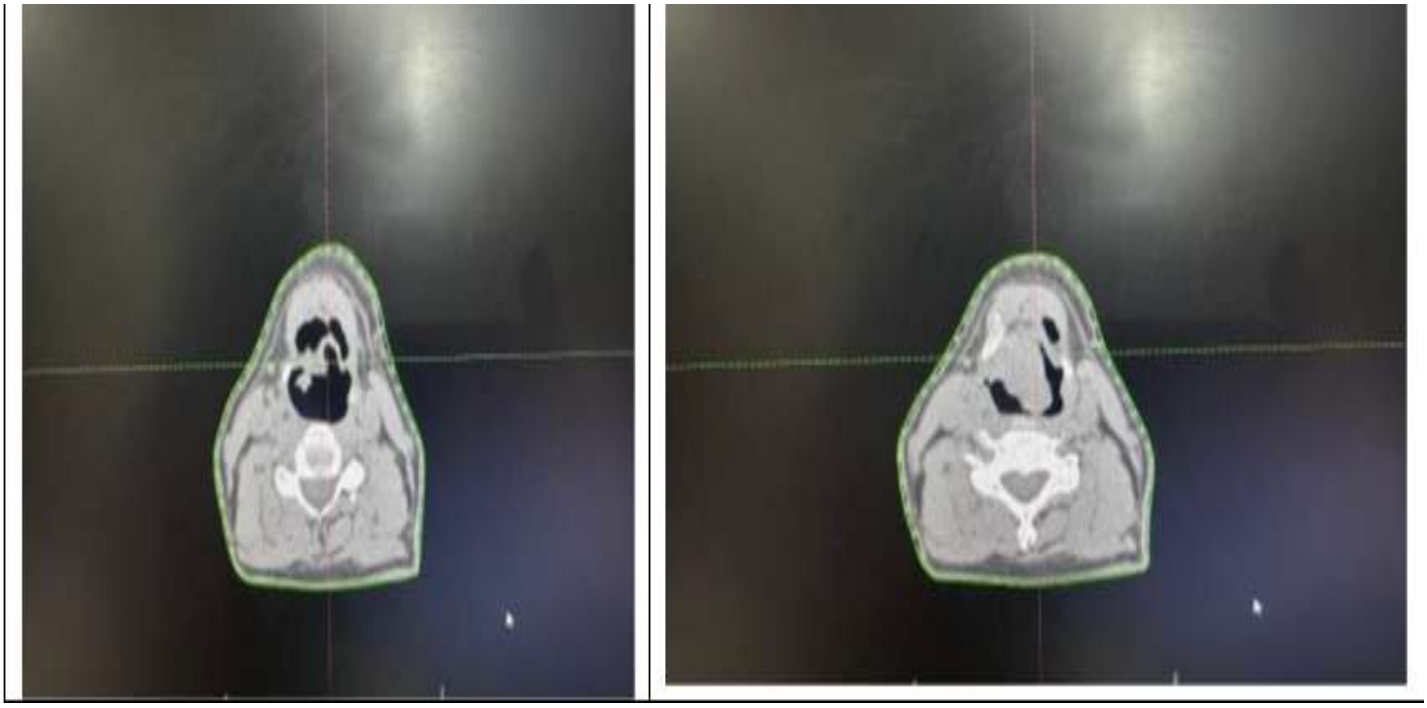
Supraglottic lesion involving right part of vallecula, abutting hyoid, paroglottic space involved, post cricoid extension+ prevertebral fascia uninvolved, right thyroid lamina abutted.

Impression- Ca Supraglottic Larynx T3N1M0

CT image:







Treatment: Neoadjuvant chemotherapy 3 cycle followed by radical concurrent chemoradiotherapy 70 Gy 35fr given.

Follow -up -After completion of RT He was in follow up. After 9 month presented with palpable inguinal node.

Examination: Right inguinal node palpable size 2.5 cm.

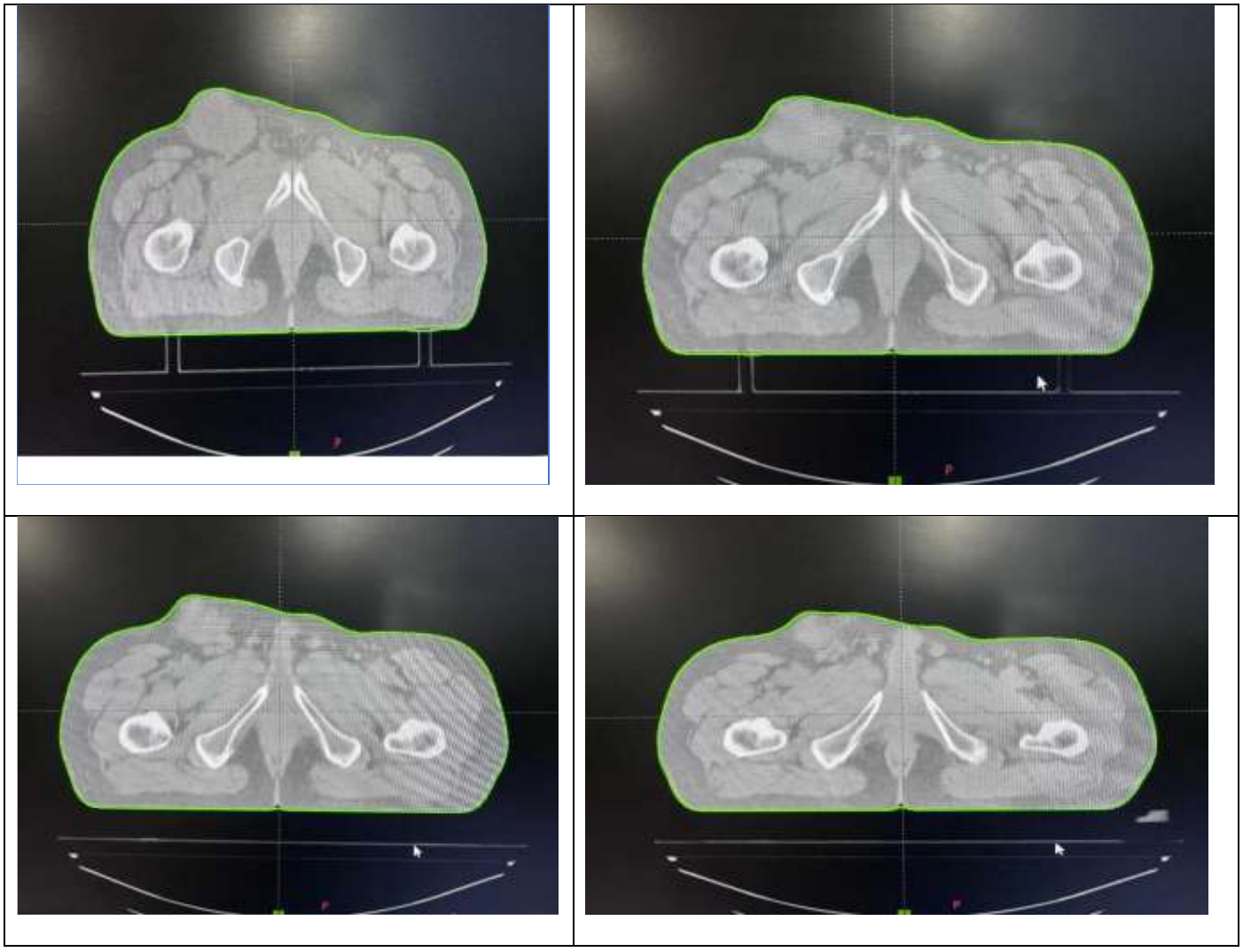
CT pelvis: There is enlarged right inguinal node.

CT Neck: Edema is seen in bilateral vocal cord. Post RT changes

Biopsy from inguinal node: showing poorly differentiated malignant neoplasm with round cell morphology.

IHC study: compatible with metastatic poorly differentiated squamous cell carcinoma

Marker	**Results**
CK	Positive
GATA3	Positive
P40	Positive
P63	Positive
CD56	Focal Positive
PAX 8	Negative
Chromogranin	Negative
CD45	Negative
Synaptophysin	Negative
TTF1	Negative
CK7	Negative
CDX2	Negative
Ki-67	90%



DISCUSSION

With careful follow-up, recurrence is sometimes detected before the patient notices a return of hoarseness. There is often minimal lymphedema for 1 to 2 months after RT, which usually subsides or stabilizes. An increase in oedema, particularly if associated with hoarseness or pain, suggests recurrence, even if there is no obvious tumor. It may be difficult to diagnose recurrence if the tumor is submucosal. Generous, deep biopsies are required. If recurrence is strongly suspected, laryngectomy may rarely be advised without biopsy-confirmed evidence of recurrence. Positron emission tomography may be useful to distinguish recurrent tumor from necrosis. The risk of distant metastasis is related more to N stage and the location of involved nodes in the low neck rather than to T stage. The risk is <10% for N0 or N1 disease and rises to approximately 30% for N3 disease as well as N1 or N2 nodes with disease below the level of the thyroid notch. Distant metastases are found most often in the lung.

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