



POST CRICOID MALIGNANCY - A CASE REPORT

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ARTICLE INFO

ABSTRACT

Key words:

Post cricoid region, malignancy, dysphagia

Access this article online

Website:

<https://www.jgtps.com>

Quick Response Code:



Post cricoid malignancy is the formation of cancer in this post cricoid region which contains intramural fat, mucosa, rich with venous plexus that extended from interior tip of the epiglottis that aids in swallowing and preventing aspiration of food. The cancer in this region will disrupt in swallowing and lead to aspiration of food in to lungs. The people who are suffering from this condition are more likely to develop malnutrition and secondary malignancies. The pharmacological management includes chemotherapy, radiation therapy, immunotherapy and surgery. A 75 years old male patient was admitted with complaints of dysphagia for about 3 months. The patient had severe productive cough and wheezing on the day of admission. Through the lab investigations and CECT scan of neck and upper chest concluded the condition as post cricoid malignancy. The symptoms experienced and the management strategies are discussed below.

INTRODUCTION

The hypopharynx is a region of the pharynx located in the throat that consists of postcricoid region, pyriform sinus, and posterior hypopharyngeal wall. The postcricoid region consists of mucosa, intramural fat, and a rich venous plexus, extending from the inferior tip of the epiglottis to the bottom of the cricoid cartilage. The major function of the different parts of hypopharynx is to aid in swallowing and prevent food aspiration. As the food bolus is propelled, the epiglottis prevents their entry into airway tract and aids it flow into esophagus through pyriform sinus and post cricoid region. Cancer in the region of hypopharynx is relatively rare where post cricoid malignancy represents only 2.4-3.1% of all hypopharyngeal cancers in the U.S. with total prevalence of approximately 0.01 cases per 100,000 persons. In the United Kingdom and India, there is a higher incidence of 3.5-40% of all hypopharyngeal tumors. Squamous cell carcinomas are presented with worst prognosis and account for approximately 95% of all malignancies of the hypopharynx.

Cancers in any of this region can propagate to other areas easily as there is lack of well-defined anatomical barriers. These malignancies can cause dysfunction of the epiglottis to aid in food passage into the esophagus, thus resulting in food or liquids being entered into the trachea. Malignancies of the hypopharynx is contributed by genetic alterations along with chronic consumption of alcohol and tobacco smoking that results mutation in the TP53 which make it ineffective for controlling the cell growth rate. About 90% of patients with hypopharyngeal cancers are tobacco smokers and 60-70 % was alcohol users. The pharmacological management includes combination of radiotherapy, chemotherapy and surgical interventions. Measuring the tumor volume is also important, if the volume is less than 6cm³ radiation therapy can be chosen and for cancerous tumor which is greater than 6cm³ and no response to chemotherapy should undergo surgical resection as initial treatment. Radiation treatment can be used in patients with low volume T1 and T2 cancers and surgery can be

performed if the tumor is evaluated as stage 3 and 4.

CASE REPORT

A 75 years old male patient was admitted with complaints of dysphagia from about 3 months. The patient had severe productive cough and wheezing on the day of admission. The patient had a past medical history of diabetes mellitus type 2 but was not on treatment, and a social history of chronic smoking and alcohol consumption. The patient came to casualty with similar complaints 5 days before and was given corticosteroid (DEFLAZACORT- 6mg, BD for 3 days) therapy but did not relieve from the symptoms. It was slowly progressing with no aggravating factors. The patient showed more difficulty towards solid food than liquid. Upon general examination, the patient was weakly nourished, malnutrition with body weight of 43.5kg, had loss of appetite and severe weight loss recently. Neck Examination showed presence of laryngeal crepitus. Upon DLE 70° (Direct Laryngoscopy Examination) (Figure 1) examination the physician found the following observations, and suggested CECT Scan of the neck and upper chest.

DLE 70°:

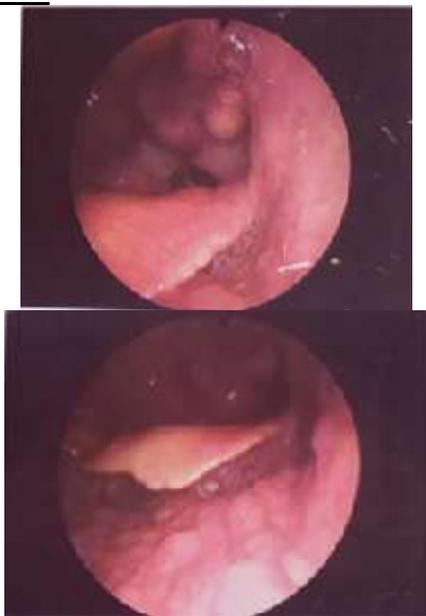


Figure:1

- Right Pyriform Fossa Not Opening
- Right Vocal Cord Fixed
- ? Proliferative Growth Post Cricoid + Post Pharyngeal Wall
- Pooling Left Glottis Space Compromise

CECT SCAN OF NECK AND UPPER CHEST- IMPRESSION:

- Heterogeneously enhancing soft tissue thickening in the posterior pharyngeal wall at the level of inferior aspect of C3 vertebra, extending into post cricoid region with mild to moderate narrowing of the airway. Mild adjacent fat stranding and prominent parapharyngeal lymph nodes
- Cervical lymphadenopathy. Possibility of hypo-pharyngeal carcinoma. Suggested histopathological correlation

Lesion in the left pyriform fossa biopsy revealed:

- Squamous cell carcinoma, conventional type - Grade 2

Other laboratory investigations revealed elevated CRP, HBA1C and ESR. Hence the physician concluded the condition as post cricoid malignancy. The patient was not able to take food orally as the fluid and food goes into the trachea therefore, was admitted and Tracheostomy Direct Laryngoscopy showed proliferative growth extending downwards behind post-cricoid area on left glottic space and right vocal cord fixed. Biopsy was taken from the proliferative growth under local anaesthetics. The RT Tube insertion was tried for dysphagia but the tube could not be passed beyond trachea. Hence, feeding jejunostomy done under surgical anaesthesia.

The patient was treated with antibiotics such as Inj. CEFOPERAZONE + SULBACTAM (1.5g) BD as surgical prophylaxis, Inj. AZITHROMYCIN as antibiotics, Inj. ACETYLCYSTEINE (1.2g) BD to treat productive cough and excess mucous production, CRITIPRO POWDER to treat malnutrition and severe weight loss, T.TRYPSIN + BROMELAIN + RUTOSIDE to aid in healing mechanism, T.MEFENAMIC ACID + PARACETAMOL to treat pain due to surgical interventions, T.PANTOPRAZOLE (40mg) to treat gastric irritations. It was advised to provide the patient with liquid feeds through jejunostomy and to review in oncology department after 10 days to start with palliative chemotherapy with methotrexate, considering the patient's age, general condition and inoperability of the disease state.

DISCUSSION

Post cricoid malignancy is a type of cancer that occurs in the region of hypopharynx. Hypopharyngeal cancers are rare diseases and mostly all are squamous cell carcinomas. Since

the area lacks well-defined anatomical barriers, they can spread into other regions of the hypopharynx. People suffering from this condition will be presented with dysphagia and food or liquids being propelled into the airway tract. The initial general management must focus on treating the weight loss and malnutrition. The patient's age, disease severity, and general condition of the patient should be considered for therapeutic management. The pharmacological interventions can be a combination or any of the following: surgery, radiotherapy, chemotherapy.

CONCLUSION

This paper focuses on the clinical features, diagnosis and treatment strategies of post cricoid malignancy.

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