



## Clinical Profile of Hypopharyngeal Cancer

### KEYWORDS

Hypopharyngeal Malignancy, Pyriform fossa malignancy

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### ABSTRACT

Hypopharyngeal malignancy has the worst prognosis of all head and neck tumours. It is mostly seen in male smokers and alcoholics. We did a cross sectional study of 20 patients who attended the department of ENT, Government Medical College, Thrissur in one year from June 2010 and diagnosed to have carcinoma hypopharynx. We concluded that Carcinoma hypopharynx commonly affect males, with male to female ratio of 9:1. Smoking was the most common risk factor (95%), followed by alcoholism (70%). Dysphagia was the commonest symptom, followed by hoarseness in. Patient can also present with cervical lymphadenopathy

### Introduction

Carcinoma of the hypopharynx is relatively rare and has got the worst prognosis of all head and neck tumours, particularly those located in the pyriform sinus which is the most frequent site of origin in the hypopharynx. Hypopharynx is the region between the oropharynx above (at the level of hyoid bone) and the oesophageal inlet below (at the level of lower end of cricoid cartilage). Embryologically the larynx interjects into the hypopharynx anteriorly and therefore considered as a separate structure. Hypopharynx is the longest of the three segments of the pharynx. Hypopharyngeal cancers are seen mainly in three anatomical sites namely pyriform sinus, posterior pharyngeal wall and post cricoid area. As in other head and neck cancer sites more than 95% of hypopharyngeal malignancies arise from the epithelium of the mucosa and therefore, are squamous cell carcinoma. Cancer that arise in the hypopharynx represents approximately 7% of all cancers of the upper aerodigestive tract and 4% of all head and neck tumours<sup>[1]</sup>.

It predominates in males and 80% occur in the pyriform sinus. 10–20 per cent arises from the posterior pharyngeal wall and 5–15 per cent from the post-cricoid area. Patients with hypopharyngeal cancers have high rates of tobacco and alcohol use and these patients frequently come from lower socioeconomic backgrounds<sup>[2,3]</sup>. There is a high incidence of advanced disease of hypopharyngeal cancer at presentation compared to other sites of the head and neck<sup>[4]</sup>. Five-year survival is poor with overall survival at 30 per cent, although for T1 and T2 tumours the survival is almost 60 per cent. This discrepancy is a reflection of late presentation, as hypopharynx tumours remain relatively asymptomatic until they are quite advanced. Cases of T1N0 account for only 1–2 per cent of all cases seen and 80 per cent of patients are stage III or IV at presentation. Advanced tumours at presentation is because of the late development of symptoms due to the anatomical peculiarity of the hypopharynx which allows considerable tumour growth before the passage of food is affected. Personalized supportive care and public health efforts targeting tobacco and alcohol consumption remain vital to the control of hypopharyngeal cancers.

### Aim of Study

The aim of the study is to evaluate the demographic characteristics, clinical presentation, anatomical sites and pathological types of carcinoma hypopharynx.

### Material and Methods

This is a cross sectional study of twenty previously untreated patients attended in the department of ENT, Government Medical College, Thrissur in one year from June 2010 and diagnosed to have carcinoma hypopharynx. A detailed history and physical examination was done which included a full otorhinolaryngological examination to identify and assess the primary. After the necessary investigations, these

patients were subjected to upper aerodigestive tract rigid endoscopy for proper assessment and biopsy of the primary.

### Observation and Results

This study included a total of twenty patients with 18 males and 2 females, with male to female ratio of 9:1. Regarding the age group one patient was in the age group 31–40, one in the age group 41–50, 9 in the age group 51–60, 7 in the age group 61–70 and 2 in the age group 71–80 as shown in figure 1. Mean age was 58.6. So majority of our patients were between the age 50–70 (80%).

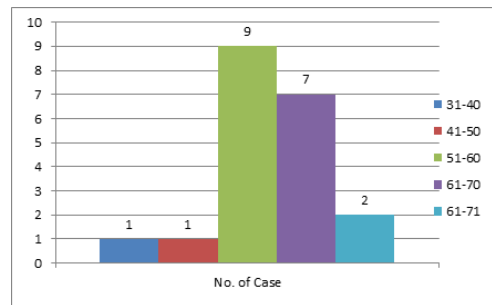


Figure 1

Regarding the risk factors, 19 patients (95%) were smokers and 14 (70%) were alcoholics. 14 patients (70%) had both the risk factors. None were pan chewers. Considering the symptomatology, 16 patients (80%) complained of dysphagia, 11 patients (55%) had hoarseness, throat pain in 6 patients (30%) and one patient (5%) had neck swelling as the only symptom with no other symptoms pertaining to the primary as in figure 2

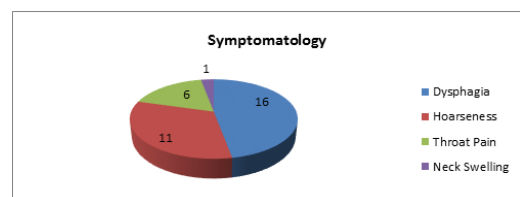
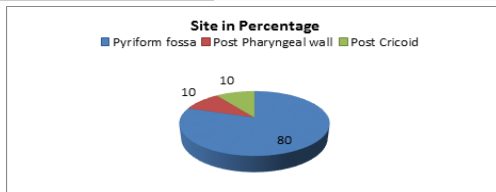


Figure 2

Regarding the anatomical sites, 16 patients (80%) had pyriform sinus involvement. Of these, 50% had right sided and 50% left sided lesions (8 each). No patients had bilateral involvement. Post cricoid area and posterior pharyngeal wall lesions were seen in 2 patients each (10% each) as in figure 3. We had only 2 female patients in our study group and both had post cricoids malignancy. All the patients were suffering from squamous cell carcinoma.



**Figure 3**

### Discussion

In our study group the age range was 31 to 80. The youngest patient was of 35 years old male and the oldest patient was of 78 years old male. Majority of the patients were in the age group 50 to 70. Mean age was 58.6. Males were predominantly involved with a male to female ratio of 9:1. This is comparable with studies of Driscoll et al.<sup>[5]</sup>, Sasaki et al.<sup>[6]</sup>, Zapico et al.<sup>[7]</sup>. Smoking was the most important risk factor in our study. 95% of our patients were smokers including one female. 70% (14 patients) were also alcoholics. Alcohol and tobacco are the two principal carcinogens implicated in the hypopharyngeal cancer according to Kato et al., Barra et al., Spector et al.,<sup>[8,9,10]</sup>. They reported that among patients with squamous cell carcinoma of hypopharynx 89% had a history of smoking or alcoholism. In our series, 19 patients (95%) were smokers and 14 (70%) were alcoholics. 14 patients (70%) had both the risk factors, smoking and alcohol use. None were pan chewers.

Regarding the symptomatology, the most common symptom was dysphagia, in 16 patients (80%). Next common symptom was hoarseness, 11 patients (55%) followed by throat pain in 6 patients (30%). Regional metastasis may be the first clinical presentation of the disease<sup>[11]</sup>. We should be also aware that some patients may present with secondary lymph node for the first time. One of our patients had no symptom pertaining to the primary and presented with the neck swelling. Majority of our patients (16) had pyriform sinus malignancy (80%) and this finding is consistent with other studies<sup>[12,13,14]</sup>. All of these were males and all were chronic smokers (100%). Of these 14 patients were also alcoholics (87.5%). Available literature showed that carcinoma pyriform fossa is predominantly a disease of men. In our study all the patients with pyriform sinus cancers were males. Female incidence is less because carcinogenic factors like smoking and alcohol intake is not prevalent in females in our area.

Two of our patients had post cricoid malignancy. Both were females. one was an occasional smoker and other was not. Both were not alcoholics. The remaining two of our patients had posterior pharyngeal wall malignancy and were males. Both were chronic smokers and alcoholics.

### Summary

Carcinoma hypopharynx commonly affect males, with male to female ratio of 9:1. Smoking was the most common risk factor in our group (95%), followed by alcoholism in 70%. Dysphagia was the commonest symptom in 80% of patients, followed by hoarseness in 55%. It can also present with cervical lymphadenopathy without any symptom pertaining to the primary. Commonest anatomical site of involvement was in pyriform fossa and all were males. The only two patients with post cricoid malignancy in our study were females. All the patients had squamous cell carcinoma.

### Conclusion

Carcinoma hypopharynx is mainly a disease of males with the exception of post cricoid malignancy, which is frequent in females. Smoking and alcoholism are the most common risk factors. Histopathologically all were squamous cell carcinoma. Pyriform sinus is the most frequent anatomical site of involvement.

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