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Original Research Article

Compliance to advocated therapeutics in and head and neck oncosurgery clinic in a tertiary health care facility in North India: a pilot study

Manish Munjal[1]*, Japneet Kaur[2], Nitika Tuli[1], Porshia Rishi[1], Harjinder Sidhu[1], Shubham Munjal[3]

[1]Department of ENT, Dayanand Medical College, Ludhiana, Punjab, India
[2]Amcare Hospital, Zirakpur, Punjab, India
[3]Department of Anatomy, Dayanand Medical College, Ludhiana, Punjab, India

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***Correspondence:**
Dr. Manish munjal,
E-mail: manishmunjaldr@yahoo.com

ABSTRACT

Background: Head and neck neoplasms are the tumours of head and neck region including various subsites in oropharynx, nasopharynx, larynx, upper oesophagus, paranaal sinuses, and ear. Various treatment modalities are available depending on the stage, type, site of tumour. This study was conducted to study the compliance of patients diagnosed with various head and neck neoplasms towards recommended treatment modalities.
Methods: 243 patients presenting in the outpatient department of a tertiary care hospital in Northern India with positive biopsy for neoplastic pathology, benign and malignant were included in the study for a period of 2 years (January 2018-December 2019). All the patients were counselled and those who complied with the suggested therapeutic modality were further evaluated.
Results: Surgical intervention was carried out in 79 subjects with benign and 133 with malignant pathologies. 49 patients among 133 were advised further surgical intervention. 31 patients underwent second surgery. Radio-therapeutic and chemotherapeutic modalities were undertaken in 66 subjects. 39 patients did not comply with treatment and were lost to follow up.
Conclusions: Decision making for head and neck neoplasms is extremely important and should be considered after thorough discussion with the patient.

Keywords: Compliance, Head and neck cancer, Tumour

INTRODUCTION

Head and neck cancers encompass multiple tumours according to the subsites involved. These include tumours originating from in oral cavity, nose, nasopharynx, larynx, thyroid, parathyroid and the salivary glands. Tumor of each site has a different etiology and separate line of management. Worldwide head and neck neoplasms while in India it is the second most common carcinoma with almost 77,000 new cases being diagnosed per year with 5 year survival rate of 50%.[1]

In the recent times, there has been a significant advancement in diagnostic techniques, surgical and radiotherapeutic in the management of these tumors leading to improved overall survival rates. In most early stage head and neck cancers either surgery or chemo radiotherapy is the first line of treatment. In advanced

stage head and neck cancers combined modality (both surgery and chemoradiotherapy) is the preferred line of treatment. Although combined modality is used in advanced stage head and neck cancers, still five year survival rate is less than 50% in these patients. This is because of decreased compliance of patients to therapeutic modalities. This has led to high rate of disease persistence and recurrences. The purpose of this study was to study compliance of patients to various treatment modalities offered.

Aim was to study total number of benign pathologies of head and neck region, total number of malignant pathologies of head and neck region, surgical treatment modality advised, radiotherapy and chemotherapy advised and compliance to treatment advised.

METHODS

This was a retrospective study of patients who presented presenting to the otorhinolaryngology and head and neck services department of a tertiary hospital in Northern India with varied head and neck tumors conducted over a period of two years from January 2018 to December 2019.

243 patients who presented to the otorhinolaryngology and head and neck oncosurgery Department of Dayanand medical college and hospital with positive neoplastic biopsy, both benign and malignant were studied. Excision diagnostic biopsy was done in patients with lesions <2 cm diameter in first sitting only. Patients with malignant biopsy reports were further advised either surgical treatment or chemoradiotherapy. Number of patients complying to various treatment modality according to different subsites were studied.

All the patients with histologically proven neoplasm of head and neck region were included in the study. Previously treated patients and patients with recurrence of disease were excluded from the study.

Patients underwent a thorough physical examination, endoscopic examination of the head and neck, radiographic investigations, and management for their condition depending upon the site, stage, nature of tumor, co morbidities and general condition of the patient. Continuous variables including age were tested for normality using the Kolmogorov–Smirnov (KS) test. Categorical variables including gender, compliance to various treatment modalities were reported as percentages or proportions

All statistical analysis was performed using Microsoft Excel and Statistical Package of Social Sciences (SPSS) version 17 for Microsoft Windows (SPSS Inc. Released 2008. SPSS Statistic for windows, version 17.0, Chicago).

RESULTS

Demographic data

Majority of the patients were males 151 out of 253 (59.6%), indicating a male preponderance compared to 102 out of 253 female patients (40.3%). Male:female gender ratio was 1.48:1.

Highest number of patients were in the younger age group 31-40 years. The eldest patient was 75 years of age. Mean age of presentation for benign pathologies was 38.5 years and for malignant was 41.3 years. 65 percent of the population belonged to rural background.

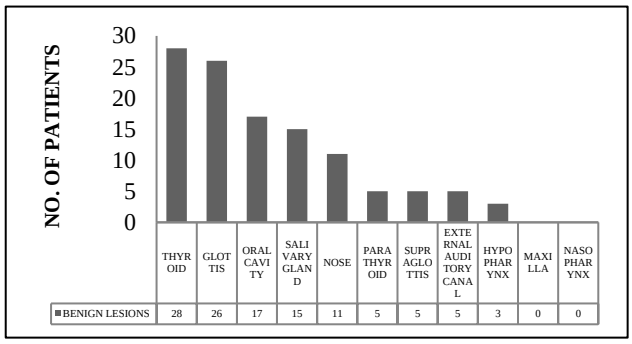

Figure 1: Number of benign head and neck pathologies (in decreasing order).

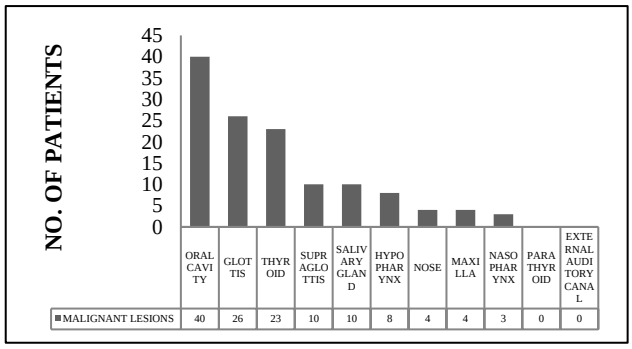

Figure 2: Number of malignant pathologies in head and neck (in decreasing order).

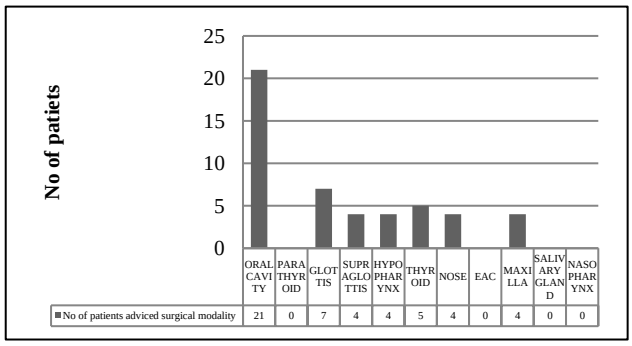

Figure 3: Number of patients advised surgical modality.

There were 128 patients with malignant head and neck pathologies with predominant oral cavity lesions 40 (31.2%) followed by glottic lesions 26. Parathyroid did not present with malignant pathologies.

Number of patients advised surgery according to the site

Figure 3 shows number of patients who were advised further surgical modality on basis of histopathological examination reports. Maximum patients who were advised further surgical modality were those with oral cavity lesions (21) who reported as squamous cell carcinoma on histopathological examination.

There were 128 patients with malignant head and neck pathologies (HPE proven). 79 patients (61.7%) had an early stage disease (stage 1 and 2) and did not require further intervention and were advice regular follow up.

49 patients (38.28%) had presented with advanced (stage 3 and 4) disease and were advice further surgical intervention based on HPE reporting.66 patients (51.5%) were advice CT/RT as part of further management.

Patients who underwent Chemotherapy / Radiotherapy

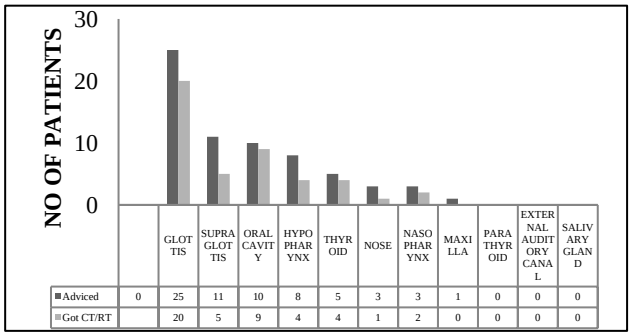

Figure 4: Number of patients advised CT/RT vs patients undergoing CT/RT.

Patients with glottic malignancies showed maximum compliance to advocated treatment, 20 out of 25 patients undertook the advised treatment.

Least compliance was noted in patients with malignancy of maxilla.

Cumulative data

The percentage of patients compliance to various therapeutic modalities offered were analyzed. Number of patients with positive head and neck neoplasms were 243.

Total number of patient's advice further treatment (surgery and CT/RT)= 48+65= 115. Number of patients who showed compliance for surgical modality=31/49 (63%). Number of patients who did not comply for surgical modality= 18/49 (37%).

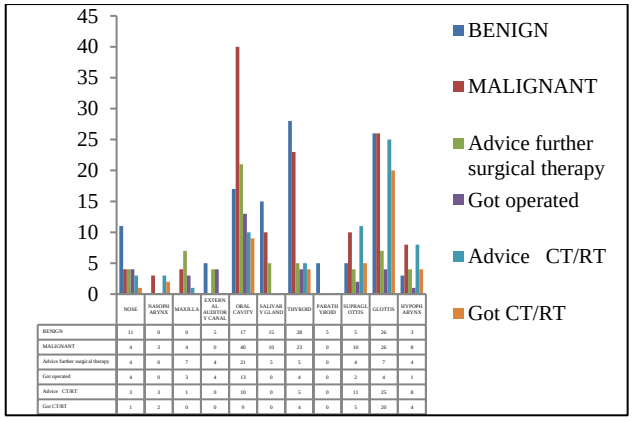

Figure 5: Cumulative data of head and neck pathologies in two year period.

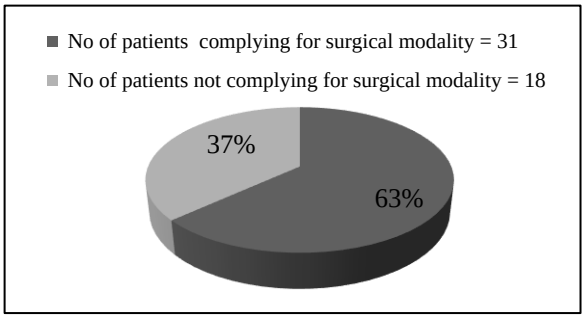

Figure 6: The percentage of patients compliance to various therapeutic modalities.

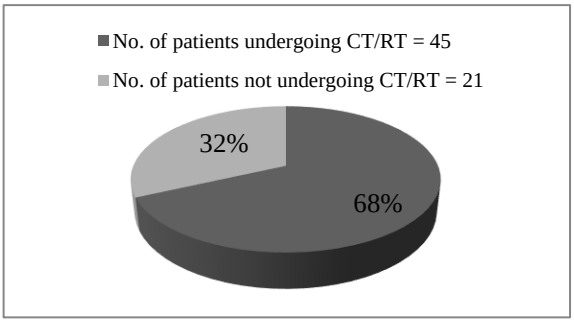

Figure 7: Compliance to CT/RT

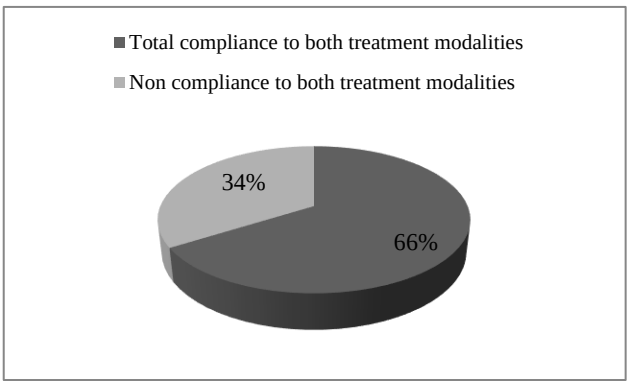

Figure 8: Total percentage of compliance to both treatment modalities.

Number of patients advised CT/RT= 66. Number of patients undergoing CT/RT= 45/66 (68%). Number of patients not undergoing CT/RT= 21/66 (32%).

Total percentage of compliance to both treatment modalities= 76. Total percentage noncompliance to both treatment modalities= 39.

DISCUSSION

Decision making for treatment of head and neck neoplasms is complex encompassing guidelines as well as patient preference. In our study all the patients who were included presented with primary lesions of the head and neck region 23 percent patients were referred by physicians out of which 7 percent of referring physicians were otolaryngologists.

In our study primary lesions were considered for evaluation. The majority of patients (65.3%) presented for initial workup and treatment, however, in a study by Donkers et al, they also included patients with residual and recurrent disease. Dronkers et al study showed 17 % of all patients with a primary HNSCC did not receive standard curative treatment, either due to nonstandard treatment advice (10%) or due to the patient choosing an alternative (7%).[2] A further 3% of all patients refused any type of therapy, even though they were considered eligible for curative.[2] In our study we found that (63%) of patients agreed for standard surgical intervention, whilst 37% percent did not opt for surgery.

In our study we noticed that various factors like age, gender, socioeconomic status rural background, travel distance to the treatment center, social factors were an important part of patients compliance to the proposed treatment regimes. We noticed a male preponderance with male to female ratio of 1.48:1

Parallel to our results, study by Derks et al, showed that social factors were also predictive for nonstandard treatment, as widowed persons were more often not treated according to the standard protocol.[3]

Many factors associated with cancer treatment refusal include: lower social class, higher education, single or divorced, patients living in a rural community, older age group, medical comorbidity, fear of surgery, fear of anesthesia and fear of treatment-related side effects.[4]

Most commonly, the outcomes of mortality, morbidity, and length of hospital stay are used as indirect indicators of quality of care. Another approach is to evaluate adherence to clinical practice guidelines as an indicator of the quality of care. Clinical practice guidelines are consensus- and evidence-based recommendations that establish the standard of care that is to be achieved.[5]

In our study 66 percent patients showed compliance to all intervention, while 34 percent did not agree to any treatment modality offered to them Even though majority of patients who presented with head and neck pathologies belonged to middle age group, we noticed that compliance to treatment was low amongst elderly population. 68 percent patients who were more than 50 years, refused treatment.

Not receiving treatment was significantly more common in patients aged >75 years, female patients, in patients from rural areas and patients with an advanced disease stage. 1.1% of all patients refused treatment that was recommended by their physician. This percentage is an average among all cancer types. Patient refusals of treatment appeared to be related to increasing age, comorbid illness, and lack of perceived clinical benefit.[4,6,7]

Limitations of our study were small sample size and the retrospective nature, which may have led to some information bias.

CONCLUSION

Head and neck squamous cell carcinoma include various tumours that arise from the head and neck region a range of squamous cell tumors that arises from the head and neck region, which includes the oral cavity, pharynx, larynx and nasal cavity.

Decision making is regarding treatment is complex and requires complete understanding of the needs of the patients as well as standard protocols. Therefore it is important to actively involve the patient in the decision making process and to adequately counsel the patient so that they understand the complexity of the medical problem and the prognosis.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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