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ASSESSMENT OF COMPLIANCE TOWARDS STANDARD CURATIVE TREATMENT PROTOCOL FOR ORAL CANCER IN A UNIVERSITY SET UP

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Abstract

Decisions on the treatment of oral cancer are getting difficult, due its high morbidity rate, social class and esthetic concerns post treatment. Some patients may therefore decline standard curative treatment. The aim of the study was to evaluate the prevalence of patients accepting the standard curative treatment for oral cancer in a university hospital setting. Data was collected from case sheets of patients who reported during the months of October 2019 and March 2020 from the hospital record management system where all the records of patients regarding their medical and dental history and treatment done are stored. All the collected data were cross verified and compiled together in an excel sheet. Compiled data were statistically analysed with help of SPSS software. In this study, with a total 51 patients, 75.86% of the patients accepted and underwent the treatment. 24.14% of patients refused the standard curative protocol. 18-29 and >60 age groups, refused treatment for oral cancer, with p value of 0.066 (<0.05). More males had refused treatment compared to female patients with p value of 0.066 (<0.05). Within the limitations of this study, it is significant that the maximum number of patients underwent and accepted the standard curative treatment.

Keywords: *Laryngeal Decision, Curative treatment, Oral cancer.*

Introduction

Decisions concerning cancer treatment are becoming more complex. On one hand, there are standard guidelines and protocols to follow. On the other hand, patient's perspectives and needs interfere. Most importantly, patients are better informed about treatment options that they used to be[1,2,3].

The balance between benefits and side effects of treatment is presented and discussed with patients in an informed and shared decision process.

A proportion of cancer patients does not receive standard curative treatment for oral cancer, either by choice of physician or patient's own choice[4,5,6].

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There are few percentages of patients that refuse standard curative treatment. This leads to low survival rates and morbidity. Five-year survival rate for head and neck area are about 50%. In majority, the choice of treatments are surgery, radiotherapy, chemotherapy, Or a combination of these. All of these treatments are associated with high morbidity, compromising vital functions, and quality of life. Treatment with curative intent cannot always be done for head and neck cancer patients[7].

The aim of the study is to evaluate the prevalence of patients accepting the standard curative treatment for oral cancer in a university hospital setting.

Previously our team had conducted numerous clinical trials[8-11] and lab animal studies[12-19] and in-vitro students[20-22] over the past 5 years. Now we are focussing on epidemiological surveys. The idea for this study stemmed from the current interest in our community.

Methods and materials

All the data of patients who accepted or refused treatment for oral cancer were taken for the study as a sample. The study setting was conducted in a university setting. Exclusion criteria was case sheets with incomplete data and those patients who did not come for follow up visits when called.

Data was collected from case sheets of patients who reported during the months of October 2019 and March 2020 from the hospital record management system where all the records of patients regarding their medical and dental history and treatment done are stored. Cross verification was done to avoid bias by another examiner. To avoid missing any data, photographic evaluation was done. Approval from the Institutional Ethical Committee was obtained before the start of the study. All the data will be covered by the following ethical approval number SDC/SIHEC/2020/DIASDATA/0619-0320.

All the relevant data was retrieved and tabulated in Microsoft excel . Later, it was statistically analysed by SPSS statistical software from IBM using the Chi-Square test. Independent variables are the diagnosed cancer and dependent variables are treatment for oral cancer.

Results

The study consisted of a total of 51 patients, among which 34 patients were males, and 17 patients were females. Among the 51 patients 75.86% had undergone treatment and 24.14% refused (Fig.1). 12.07 % from 18-29 and >60 age groups refused treatment for oral cancer. 17.24% from 30-45, 24.14% from 46-60 and 34.48% from >60 age groups accepted standard treatment with p value of 0.066 (<0.05) (Fig.2). 10.34% of females and 13.79% of males refused treatment. 20.69% of females and 55.17% of males accepted treatment with a p value of 0.066 (<0.05) (Fig.3).

Discussion

In the present study, a higher percentage of patients accepted and underwent treatment for oral cancer.

Counselling of patients and informed decision making is important and as a result a proportion of patients may or may not receive standard curative treatment depending on the decision made. Our study shows 24.14% of patients did not receive standard curative treatment, either due to a non-standard treatment advice or a patient choosing alternative[23,24].

A study suggested by Derk W, social factors play an important role, as widowed patients were more often not treated according to standard protocol[25].

In a few other studies, there were major differences in the methodology used for counselling of patients. One study did not perform multivariable analysis. Another study excluded patients with low tumour stage and patients aged between 60-70 years. Another study included only elderly patients[26].

There are certain similarities in some studies made. Various factors associated with refusal of cancer treatment include lower social classes, higher education, divorces, living in rural communities, older age groups, fear of surgery, fear of side effects, etc.

In a recent study in the United States 19% with lung cancer, 16% with prostate cancer received no treatment. In this study, the reason for refusal of treatment occurred in patients with increasing age, comorbid illness, and lack of clinical benefits[27,28].

A study on colon adenocarcinoma, 18% of patients did not receive treatment due to decisions made by oncologist and 9% refused treatment themselves. In our study, the reason for refusal of treatment is highly the patient's decision, lower social class, patients living in rural communities etc[29,30].

This study could be further improved by increasing the sample size and analyse the different reasons for refusal of treatment.

Conclusion

Oral squamous cell carcinoma is a commonly occurring oral cancer and it is associated with significant mortality and morbidity. The purpose of this study was to explore the reasons for refusal and acceptance of treatment for oral cancer. To conclude, it is statistically significant that the majority of the cases accepted the standard curative treatment for oral cancer in our Institute.

AUTHORS CONTRIBUTION First author, Sindhupriya performed the data collection by reviewing patient details,filtering required data,analysing and interpreting statistics and contributed to manuscript writing.

Second author,Dr.Mahathi contributed to conception of study title, study design, analysed the collected data,statistics and interpretation and also critically revised the manuscript.

Third author,Dr.Suresh.V participated in the study and revised the manuscript. All the three authors have discussed the results and contributed to the final manuscript.

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CONFLICT OF INTEREST The authors declare that there is no conflict of interests.

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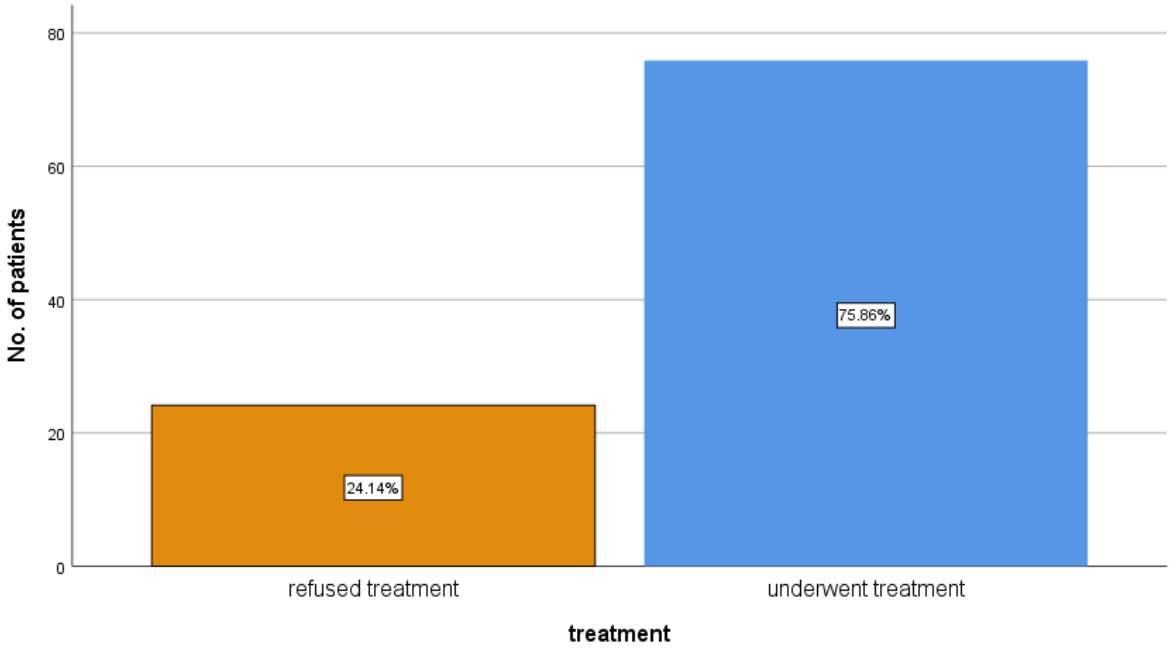

Fig.1 Bar graph represents the percentage of patients who underwent and refused treatment. X-axis represents the who patients underwent and refused treatment. Y-axis represents the number of the patients in each. From the graph it is evident that percentage of patients who refused treatment was 24.14% (orange bar) and who underwent treatment was 75.86% (blue bar)

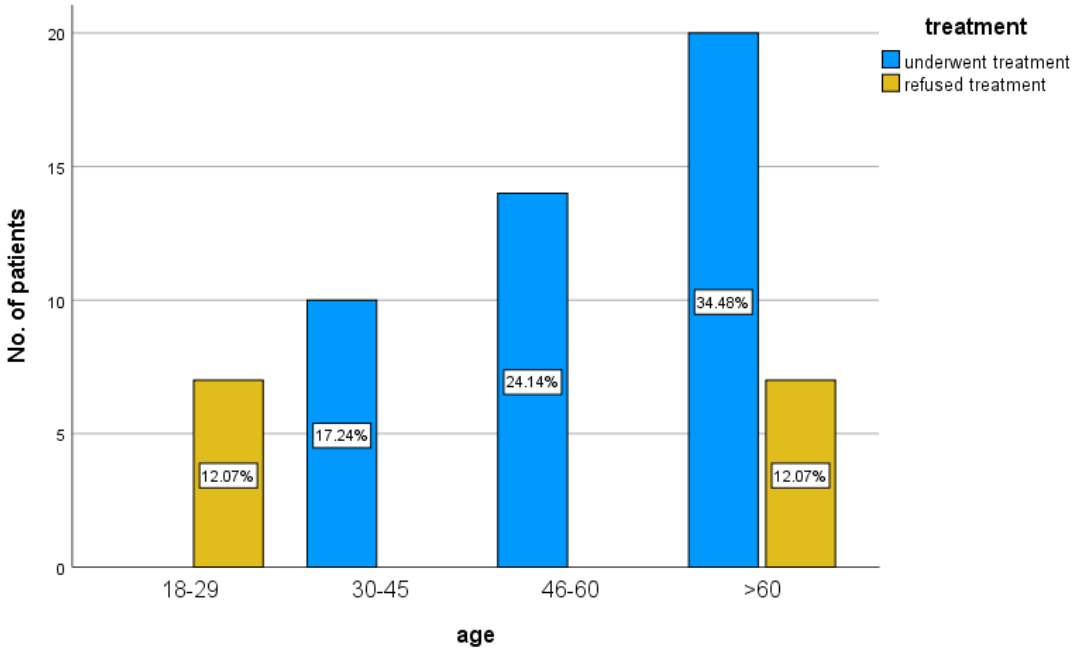

Fig.2 Bar graphs represent the association between age and patients who underwent and refused treatment. X-axis represents the age of patients. Y-axis represents the total patients who reported for oral cancer treatment. Patients in the age group 30-60 years accepted treatment as advised whereas, patients in the 18-30 age group did not comply with the advised treatment. Chi-square test was done and the association was found to be

statistically significant. Pearson's Chi-square value: 0.312, DF:2, p value: 0.066 (<0.05), proving that older patients above the age 60 and younger patients of age 18-29 refused treatment.

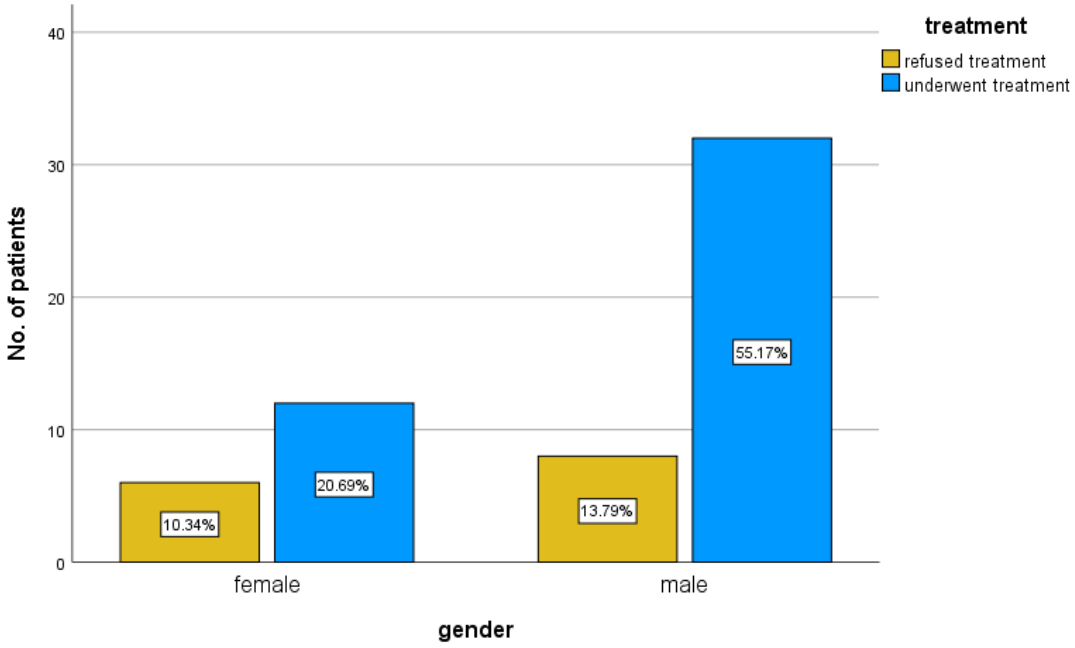

Fig.3 Bar graphs represent the association between gender and patients who underwent and refused treatment. X-axis represents the gender of patients. Y-axis represents the percentage of patients underwent and refused treatment of oral cancer. More males (13.79%) than females (10.34%) refused treatment for oral cancer (yellow bar). Chi-square test was done and the association was found to be statistically non significant. Pearson's Chi-square value: 0.112, DF:2, p value: 0.066 (<0.05), proving that more number of males accepted treatment compared to females.

Legend of Graphs

Graph 1	Percentage of patients underwent and refused treatment
Graph 2	Association of age and patients underwent and refused treatment
Graph 3	Association of gender and patients underwent and refused treatment