A Cross-Sectional, Retrospective Study of Clinicopathological Profile of Oral Malignancies in King George Hospital, Visakhapatnam, India

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ABSTRACT

BACKGROUND

Oral malignancy is one of the commonest cancers in Asian countries. The incidence of oral cancer in India is 28 per one lakh population. The commonest site of oral cancer in India is buccal mucosa (>70%). Every year there is an incidence rate of 30 per one lakh worldwide and ten per one lakh in India.

METHODS

This is a hospital based, retrospective, cross sectional study, conducted in a tertiary care hospital attached to Andhra Medical College, Visakhapatnam, from May 2017 to September 2019 on 30 cases.

RESULTS

Buccal mucosa is the most common site of oral malignancies (53.34%). The peak age of incidence is 30 - 55 years in this study. Male to female ratio in this study group is 2.75:1. The habit of smoking and chewing tobacco is in about 70% cases, making it the most common addiction habit among the cases in this study, followed by pan masala, betel nut chewing, and alcohol. Low socioeconomic status is commonly associated with oral cancers. The majority of cases presented as ulceroproliferative lesions (80%) in this study.

CONCLUSIONS

Oral cancer is a national problem. Oral cancer remains a challenge as the majority of the patients reported in advanced stages. Micrographic excision and alternate forms of therapy such as cryo, electro, chemo, and photodynamic therapy for smaller lesions and wide excision along with advanced reconstructive procedures have made surgery the anchor in management. Radiotherapy is another important modality of treatment as its side effects reduced with the invention of radio sensitizers and radio protectors. Adjuvant-chemo, concomitant-chemo, and radiotherapy are useful in advanced disease. Immunological agents such as Gefitinib and Erlotinib are in use. Effective multi-modality management has come into use with surgery, radiotherapy and chemotherapy reducing the morbidity in oral cancers.

KEYWORDS

Oral Malignancy, Clinic Pathological Profile, Retrospective Study, Indian Scenario

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BACKGROUND

Oral malignancy is one of the commonest cancers in Asian countries and including India. The incidence of oral cancer in India is 28 per one lakh population [1,2]. The commonest site of oral cancer in India is buccal mucosa (>70%). Every year there is an incidence rate of 30 per one lakh worldwide and ten per one lakh in India.[3,4]. Various sites of oral cancers in Indian population are cheek (50%),[5,6,] tongue (25%), floor (15%), palate, and lips (10%). But, in western countries, the tongue is the most common site.[7,8] The most common pathological type of oral cancers is squamous cell carcinoma.[9] The second most common are minor salivary gland tumors.[10,11] Surgical wide excision and radiotherapy are the main modalities of treatment along with adjuvant chemotherapy. Oral malignancy is the most common malignancy in Indian males (40%) and its increasing incidence in Indian females. Oral squamous cell carcinoma is the most common variety of oral malignancy, representing about 90% of the cases.[12,13] This shows geographical variation concerning the age, site, and habits of the population, which in turn parallels to intensity of carcinogenic exposure. The histopathological grade of the tumour is related to its biological behaviour. The main purpose of this work is to study the various aspects of oral cancer - its presentation, site, the grade of the tumour, various modalities of treatment, and their final outcome.[14,15]

According to the statistics in 2012, the incidence in males is 53842, and in females are 23161 cases in India.[15,16,17] Most of the oral cancer cases appear over the age of 50-70 years. The mean age of survival is about 5 years. The commonest age is the fifth decade of life.[15,18] Male to Female ratio is 2:1. But, nowadays, this ratio is steadily decreasing because of the high incidence of smoking habit in females. The high incidence rates are seen in women of southern India due to the habit of tobacco chewing.[4,19,20]

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Objectives

1. To study different modes of presentations in oral malignancies.
2. To study the role of various addiction habits in oral malignancy.
3. To study various treatment modalities & their outcomes in oral malignancies.

METHODS

This study is conducted in a tertiary care hospital attached to Andhra Medical College, Visakhapatnam. The study type is hospital based, retrospective, cross sectional study conducted from May 2017 to September 2019 on 30 cases.

Inclusion Criteria

All patients of age group 20-70 years with operable oral malignancy and with or without secondary admitted during the study period were included in the study following informed and written consent.

Exclusion Criteria

Patients with malignancies adjacent to the oral cavity (nose, par nasal sinuses, pharynx, and salivary glands) are excluded. A thorough history regarding age, sex, habits, pre-malignant conditions, clinical features, staging, were recorded in all the patients. A detailed clinical examination was done. All the routine blood tests were applied. Then all the patients were subjected to USG, CECT, and FNAC of neck secondary and histopathological examination to confirm the diagnosis. The patients underwent treatment based on the stage & metastasis of the disease. The postoperative course and follow up results were noted. Prior permission was taken from the Institutional Ethics Committee, Andhra Medical College, and Visakhapatnam. Written informed consent was taken from each individual of the study. All the data collected will be organized using Microsoft word and excel software and statistically analysed by SPSS software.

RESULTS

1) The buccal mucosa is the most common site of oral malignancies (53.34%), and the tongue is the second most common site (26.67%) in this study. 2) The peak age of incidence is 30-55 years in this study. 3) Male to female ratio in this study group is 2.75:1. 4) The habit of smoking and chewing tobacco is in about 70% cases, making it the most common addiction habit among the cases in this study, followed by pan masala, betel nut chewing, alcohol. 5) Low socioeconomic status is commonly associated with oral cancers than medium status in this study. 6) The majority of the cases are presented as ulceroproliferative lesions (80%) in this study. 7) The moderately differentiated (G_2) histological variety (50%) is the most common presentation in this study. 8) 83% of cases presented at an advanced stage (III, IV) of disease in this study. 9) No recorded cases of any distant metastasis (stage – IV_c) 10) Out of 30 patients in this study Two patients treated with WLE only, one patient treated with WLE + REC. Four patients treated with WLE + REC + ND, Two patients treated with HG only, Two patients treated with HG + ND, Eight patients treated with

CR + ND, Eleven patients treated with CR + REC + ND, Eight patients treated with RT alone, Twenty-two patients treated with RT + CT Out of 30 patients in this study, five patients developed wound infection, and two patients developed an oro-cutaneous fistula. Other cases have no specific postoperative complications. Out of 30 cases in this study, five patients (16.7%) died. All these cases came to our institute in the advanced stage of oral malignancy.

DISCUSSION

Oral cancer is a national problem. Oral cancer remains a challenge as the majority of the patients are reported in advanced stages. Micrographic excision and alternate forms of therapy such as Cryo, Electro, Chemo, and Photodynamic therapy for smaller lesions and wide excision along with advanced reconstructive procedures have made surgery as the anchor role in management. Radiotherapy is another main modality of treatment as its side effects reduced with the invention of radio sensitizers and radio protectors. Adjuvant chemo and concomitant chemo and radiotherapy are useful in advanced disease. Immunological agents such as Gefitinib and Erlotinib are in use. Effective multi-modality management has come into use with surgery, radiotherapy and chemotherapy reduced the morbidity in oral cancers. Further development in Nanotechnology and directed therapies will alter the diagnosis and treatment of oral cancers relative to contemporary treatment modalities. The best way to cure is by prevention. Screening of high-risk group with addiction habits should be done. Health education through mass media and posters in health centres and dispensaries on the ill effects of tobacco, alcohol, betel nut on a large scale by the government will create awareness and helps in prevention. The younger population is to be educated by mass media with a ban on advertisements of tobacco, alcohol, and screening camps will also be useful.

CONCLUSIONS

Oral cancer is a national problem. Oral cancer remains a challenge as the majority of patients reported in advanced stages. Micrographic excision and alternate forms of therapy such as cryo, electro, chemo, and photodynamic therapy for smaller lesions and wide excision along with advanced reconstructive procedures have made surgery as the anchor in management. Radiotherapy is another important modality of treatment as its side effects reduced with the invention of radio sensitizers and radio protectors. Adjuvant chemo and concomitant chemo and radiotherapy are useful in advanced disease. Immunological agents such as Gefitinib and Erlotinib are in use. Effective multi-modality management has come into use with surgery, radiotherapy and chemotherapy reduced the morbidity in oral cancers. Further development in nanotechnology and directed therapies will alter the diagnosis and treatment of oral cancers relative to contemporary treatment modalities. The best way to cure is by prevention. Screening should be done in high-risk groups with addiction. Health education through mass media and posters in health centres and dispensaries on the ill effects of tobacco, alcohol, betel nut on a large scale by the government will create awareness and helps in prevention. The younger population is to be educated by mass media with a ban on advertisements of tobacco, alcohol, and screening camps.

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