To Evaluate the Tumor Size, Time Interval and Factors Involved in Delayed Presentation of Oral Cancerous Lesion in Rural Areas – A Multifactorial Analytical Study

Harish Saluja[1]*, Shivani Sachdeva[2], Semmit Shah[3], Anuj Dadhich[1], Parul Tandon[4] and Vinayak More[4]

[1]*Reader, Department of Oral and Maxillofacial Surgery, Rural Dental College, Maharashtra, India*

[2]*Reader, Department of Periodontics, Rural Dental College, Maharashtra, India*

[3]*Professor and Head, Department of Oral and Maxillofacial Surgery, Rural Dental College, Maharashtra, India*

[4]*Senior Lecturer, Department of OMFS, Rural Dental College, Maharashtra, India*

*Corresponding Author: Harish Saluja, Department of Oral and Maxillofacial Surgery, Rural Dental College, Maharashtra, India.

Abstract

Introduction: Early diagnosis and treatment is the main key to the success in management of cancer patients. Detecting Oral cancer at an early stage is believed to greatly enhance the patient's chances of survival and reduce the burden and disfigurement from the disease. Unfortunately in rural parts of India as of our institute patients of cancer reports at a very late stage because of many reasons. Multiple reasons are involved in late reporting of onco patients including personal and professional delays. In this study we reported the size of primary lesions and different reasons for such big delays.

Materials and Methods: 200 oral cancer patients reporting to OMFS department of Rural Dental College were evaluated for the size of the primary lesions and to find out the different personal and professional reasons for such long delays. Also time lapse for these patients were also evaluated from the noticing of sign/symptom to reporting to our department.

Results: Results were not encouraging for any onco surgeon, as the time lapse from first sign/symptom to reporting to our department was 10 months and above in almost 70% of cases. In our study 70% of the cases reported at t3, t4 size of the primary lesion.

Among reasons for such big delays were 2 important findings, patients negligence/reluctance towards their health and inability of local health professionals to diagnose the cases and refer with in time.

Discussion and Conclusion: The patients reported to our rural centre in our study at very late stage and the lesions size were very big in majority of cases. Patients health risk taking behaviour and inability to diagnose cases with in time by health care professional in rural areas were most common reasons note in our study. Thousands of studies, lot of research, and huge amount of money have been spent in the field of oncology to improve results but these all will be of significance when patient reports well in time. Exact reasons for such health risk taking behaviours will help us to work at ground level. Local social worker, rural health committees can work in this direction to change the attitude of rural patients towards health.

***Keywords**: Oral Cancer; Delay; Treatment; Rural; Prognosis; Big Lesions*

To Evaluate the Tumor Size, Time Interval and Factors Involved in Delayed Presentation of Oral Cancerous Lesion in Rural
Areas – A Multifactorial Analytical Study

1440

Introduction

Oral cancer is the most common cancer in the Indian subcontinent. It holds 6th position in the cancer incidence worldwide and it is 3rd in Asia. Among India 2/3rd of the cases are reported from rural parts of the country [1]. Detecting Oral cancer at an early stage is believed to greatly enhance the patient's chances of survival and reduce the burden and disfigurement from the disease [2].

Early diagnosis and treatment is the main key to the success in management of cancer patients. A cure rate of above 90% can be achieved in stage I disease for oral cancer patients as the lesion remain localized for a long time [3]. Diagnosis of large oral carcinomas has been linked to an increase risk of neck node metastasis and poor survival [4-6]. Tumor size influences therapy and prognosis of oral cancer. Patients with oral cancer often present late to the doctor making treatment difficult, expensive and sometimes unsuccessful.

Oral cancer can be easily detected by feeling or seeing a lesion in the oral cavity. However still large numbers of patients are misdiagnosed and are not referred with in time. The 5 year survival rate of this disease is only 50%, although this could be improved into 80% when the lesion is detected at an early stage. It seems obvious that the longer a patient waits from the start of a cancer to diagnosis, the more advance the cancer will be and the worse the prognosis. Delay in presentation may be considered to be a health risk taking behaviour.

Unfortunately in rural parts of India as of our institute patients of cancer reports at a very late stage because of many reasons. There is a huge difference between staging at which patient reports to cancer centre considering staging of the lesion between rural centers and urban centers. Multiple reasons are involved in late reporting of onco patients including personal and professional delays.

In this study we reported the size of primary lesions and different reasons for such big delays.

Aim and Objectives

Aim: To find out, categories and focus, on reasons for late presentation of oral cancer patients of rural areas of central Maharashtra.

Objectives

1. To find out the time lapse between first symptom to reporting of patient.
2. To find out the size of the primary lesions according to TMJ staging.
3. To find out reasons behind late presentation to cancer centre among rural people.
4. To find out patient seriousness regarding their health.
5. To find out families/relatives seriousness towards patients health.
6. To find out ease of health services in and around rural areas.

Materials and Methods

Study was conducted at the Department of Oral and maxillofacial surgery of Rural Dental College Loni with a sample size of 200 oral cancer patients. The clinical staging of the primary oral lesion was done in 4 stages according to TNM System and the findings were noted.

Time lapse was noted between first presentations of any sign/symptom or first notification by the patient/relatives till patient reported to our department and reasons for such long delays were evaluated with each patient in the form of questionnaire.

The concept of diagnostic delayed comprised the time since first sign or symptom was noted to definitive diagnosis. The reasons for delay were categorized into patient and professional delay.

To Evaluate the Tumor Size, Time Interval and Factors Involved in Delayed Presentation of Oral Cancerous Lesion in Rural Areas – A Multifactorial Analytical Study

1441

Patient delay includes patient negligence/reluctance, family/ relatives non-cooperation, insufficient transport system, poor socio economic status and professional delay includes non-availability of adequate health services in rural/tribal area, misguidance /wrong diagnosis by consulted doctors, referral delay.

Inclusion criteria: Patient having ulceroproliferative growth in the oral cavity at any site reporting to our institute. Both males and females between the ages of 20 - 70 years were included.

Exclusion criteria: Premalignant lesions, Cancer patients from urban areas, Patients having reoccurrences.

Results

200 cases were evaluated reporting to our department. In more than 70% of cases time lapse between first notification about the lesion by patient till reporting to our department was approximately 10 months and above, while 25% cases repot between 6-10 months and only 5% cases report before 5 months (Table 1).
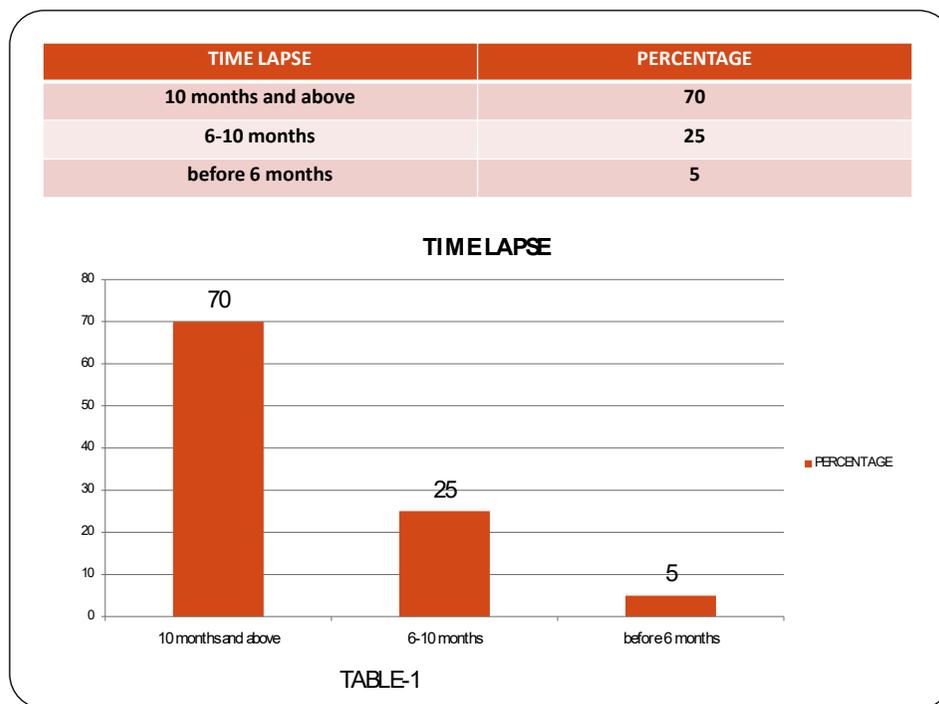
TIME LAPSE	PERCENTAGE
10 months and above	70
6-10 months	25
before 6 months	5

Table 1: Time lapse between notice of first symptom /sign till reporting to our department.

In results we found in our study that 45% of the primary lesions were of T4 size and 35% of T3 and 16% of T2 size. Surprisingly only 4% of the cases were noted at T1 size at our centre (Table 2).
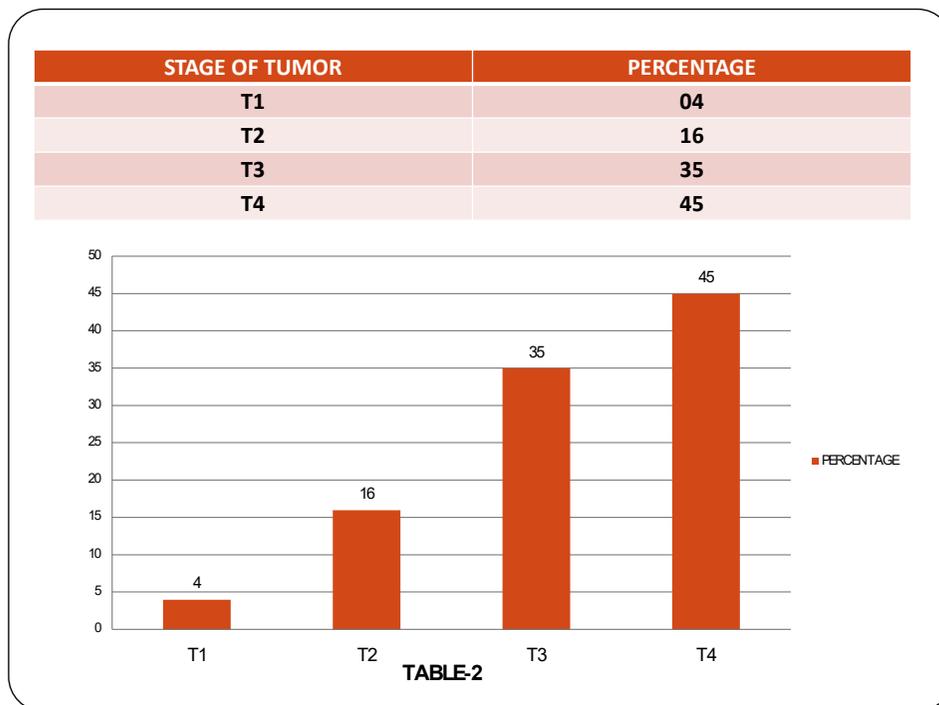
To Evaluate the Tumor Size, Time Interval and Factors Involved in Delayed Presentation of Oral Cancerous Lesion in Rural Areas – A Multifactorial Analytical Study

1442

STAGE OF TUMOR	PERCENTAGE
T1	04
T2	16
T3	35
T4	45

TABLE-2

***Table 2:** Percentage of cases according to the size of primary tumor following TNM Staging.*

Among reasons for such long delays were patients negligence/reluctance accounted for 39% among personal reasons and misdiagnosis/wrong diagnosis was the biggest reason in almost 30% of cases under professional delay (Table 3).
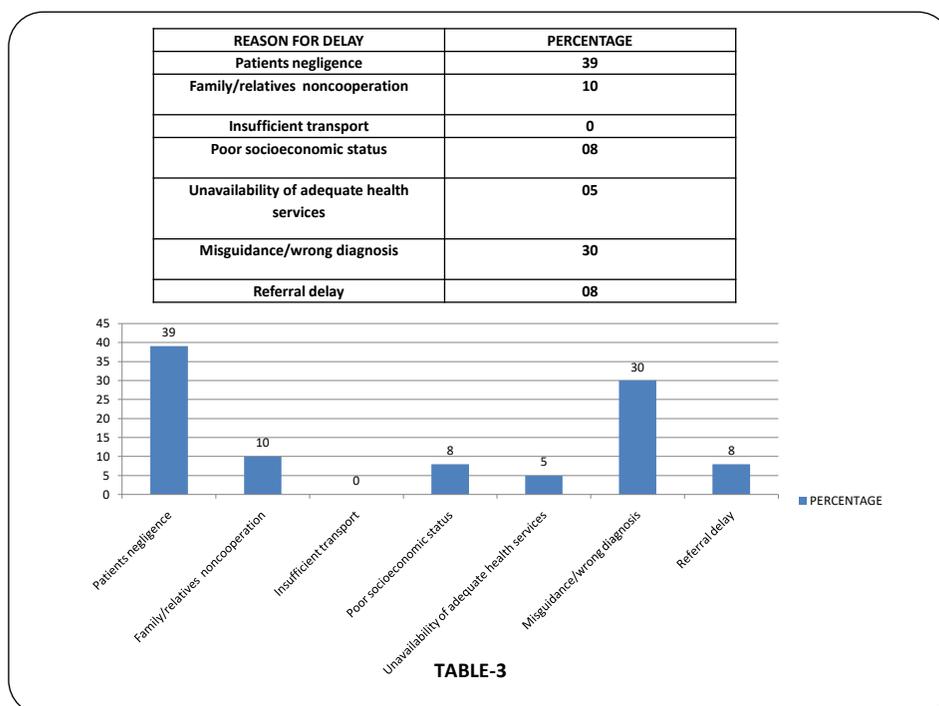
REASON FOR DELAY	PERCENTAGE
Patients negligence	39
Family/relatives noncooperation	10
Insufficient transport	0
Poor socioeconomic status	08
Unavailability of adequate health services	05
Misguidance/wrong diagnosis	30
Referral delay	08

TABLE-3

***Table 3:** Percentage of different factors responsible for referral delay.*

To Evaluate the Tumor Size, Time Interval and Factors Involved in Delayed Presentation of Oral Cancerous Lesion in Rural Areas – A Multifactorial Analytical Study

1443

Discussion

Early detection of oral cancer is widely recognized as the cornerstone to reduce diagnostic delay and thus improve the survival [6,7]. The oral cancer can be easily detected by seeing or feeling a lesion in the oral cavity but still patients with oral cancer does not had good records in early reporting. According to Sandeep Kumar., *et al.* 60% of the patients of oral cancer reporting at later stage and this percentage were almost 80% in our study because of the rural setup.

There are three important facts about oral cancer in India. First, it is preventable, second it is preceded by precancerous lesion that act as easily warning signals and 3rd is even if it occurs it is eminently curable because distant metastasis generally occurs late [8].

In one study of north India 66% cases reported after 6 months [9], while in a study in UK 48% of the patients postponed seeing a doctor for more than 3 months [10], but in our study almost 40% of cases were those reported after an interval of more than 10 months. So this comparison shows the difference of awareness between Indian population and UK population.

Main reasons behind prolong delay in our study was patient self negligence/reluctant behaviour and same was the result of study published by S Kumar., *et al*. in year 1993. So these findings raise an alarm for social workers, health workers, government agencies to plan health policies in this direction.

Another big factor from professional delay side was inability to diagnose the case at time by consulted doctors with in time, which was a big worry and steps are required for training of health professionals especially from rural areas.

The studies one by Brouha., *et al.* 2005 and Gorsky., *et al.* 1995 showed that the site of primary lesion has been linked to delay diagnosis at advance stage [11,12]. Tongue, buccal mucosa and lip seem to be diagnosis at early stage than floor of mouth and retromolar trigone.

A non-healing ulcer, pain in most of the cases, excessive salivation [8], something abnormal in my mouth are the early symptoms and so if the patient will be aware of these symptoms they can consider them serious enough to get the examination done and thus will improve the quality of post-surgical patients.

The cause of diagnostic delay relate to the clinician are particularly interesting and can be basically due to not to practice a full clinical examination [13] and/or lack of familiarity and experience with the disease [14]. Co-morbidity has also been suggested as one of the factor as clinicians in these situations tend to focus their attention on the existing disorders [15].

Conclusion

The reason behind planning for this type of study was that most of the studies in the field of oral oncology are on prevalence, etiology, distribution of site, metastasis, prognosis and treatment and there were very few studies on evaluation of factors behind delayed reporting of oral cancer patients. This study was the first one of its type in central Maharashtra. Thousands of studies, lot of research, and huge amount of money have been spent in the field of oncology to improve results but these all will be of significance when patient reports well in time. Exact reasons for such health risk taking behaviours will help us to work at ground level. Local social worker, rural health committees can work in this direction to change the attitude of rural patients towards health.

Our study showed large number of cases reported late because of misdiagnosis by consulted doctors, so government can plan training of health care professional in this direction. Even paramedical staff should be trained in screening oral cavity as it is the need of hour according to this study.

This study can be concluded by remark that all the research work, better surgical techniques, best instruments, best skills an facilities can give good results only, when patient reports well with in time.

To Evaluate the Tumor Size, Time Interval and Factors Involved in Delayed Presentation of Oral Cancerous Lesion in Rural Areas – A Multifactorial Analytical Study

1444

So more efforts are required in this direction from our side as well as from government agencies to frame such polices for early presentation of patients.

Bibliography

1. Kumar S., *et al.* "Delay in presentation of oral cancer: A multifactor analytical study". *National Medical Journal of India* 14.1 (2001): 13-17.

2. Allison P., *et al.* "The role of professional diagnostic delays in the prognosis of upper aerodigestive tract carcinoma". *Oral Oncology* 34.2 (1998): 147-153.

3. Baker SR and Krause CJ. "Cancer of the lip. Cancer of the head and neck". New York: Churchill Livingstone (1981): 296.

4. Centelles PV., *et al.* "Timing of oral cancer diagnosis: implications for prognosis and survival" (2012).

5. Woolgar JA., *et al.* "Survival and patterns of recurrence in 200 oral cancer patients treated by radical surgery and neck dissection". *Oral Oncology* 35.3 (1999): 257-265.

6. De Faria PR., *et al.* "Clinical presentation of patients with oral squamous cell carcinoma when first seen by dentist or physician in a teaching hospital in Brazil". *Clinical Oral Investigations* 7.1 (2003): 46-51.

7. McDowell JD. "An overview of epidemiology and common risk factors for oral squamous cell carcinoma". *Otolaryngologic Clinics of North America* 39.2 (2006): 277-294.

8. Sankaranarayan R. "Oral cancer in India: An epidemiologic and clinical review". *Oral Surgery, Oral Medicine, Oral Pathology* 69.3 (1990): 325-330.

9. Kumar S., *et al.* "Investigation of factors causing delay in the treatment of oral mucosal cancer". *Oral and Maxillofacial Surgery* 8 (1993): 41-47.

10. Williams RG. "The early diagnosis of carcinoma of the mouth". *Annals of the Royal College of Surgeons of England* 63.6 (1981): 423-425.

11. Brouha XDR., *et al.* "Oral and pharyngeal cancer: analysis of patient delay at different tumor stages". *Head and Neck* 27.11 (2005): 939-945.

12. Gorsky M and Dayan D. "Referral delay in diagnosis of oro/oropharyngeal cancer in Israel". *European Journal of Cancer* 31B.3 (1995): 166-168.

13. Bruun JP. "Time lapse by diagnosis of oral cancer". *Oral Surgery, Oral Medicine, Oral Pathology* 42.2 (1976): 139-149.

14. Guggenheimer J., *et al.* "Factors delaying the diagnosis of oral and oropharingeal carcinomas". *Cancer* 64.4 (1989): 932-935.

15. Allison P., *et al.* "Predictors of professional diagnostic delays for upper aerodigestive tract carcinoma". *Oral Oncology* 34.12 (1998): 127-132.

Volume 17 Issue 8 August 2018