



Our Experience of Oral Cancer Surgery in Covid-19 Pandemic

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ABSTRACT

Surgical clinical practice suffered a lot during the pandemic of COVID-19 worldwide. Only the emergencies were taken care of, but during the pandemic we realised that curable oral cancers can be disastrous if we wait for the pandemic to end. So, we formulated our institutional guidelines to screen test all the asymptomatic oral cancer patients for COVID-19. All preoperative oral cancer patients were screened for RTPCR, further for HRCT chest for all RTPCR negative patients. We share our data from 15 April 2020 to 15 August 2020 with details of site and procedures done. During our study period we operated 23 cases of oral squamous cell carcinoma. There were 18 male and 5 female cases in age group of 35-65. Tested with gold standard RTPCR followed by HRCT chest ensured the safety of patient's attendants and clinical staff. To conclude we observed that that pandemic or not, patient's treatments should not suffer, there are many who need our skills to give them a hope of survival.

KEYWORD: COVID-19, oral cancer, RTPCR, HRCT, CO-rads

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INTRODUCTION

The world suffered from COVID-19 virus which surprised us by being a pandemic causing millions of deaths. India had fared well during the pandemic and was the example in front of world for managing with the most populous country. However, lockdown was enforced on and by the end of march number of positive cases were risen to 1000 with 25 deaths. Even the best health care facilities faced the hard time challenging COVID-19.

As clinicians at medical college, we quickly started formulating the guidelines to handle the pandemic which we had never faced before, to deliver quality services to patients. Along with COVID in the forefront many other life-threatening conditions like cancer had apparently taken a step back from everyone's mind. But the number of patients who were suffering from these had not declined. As frontline warriors we had to fight against COVID-19 and cancer with compassion. Our college is the leading medical college of Delhi NCR where we were providing level 3 facilities to the patients. During pandemic we came to know the importance of mask and social distancing. Technology here played the very crucial part by connecting each one of us by zoom meetings, webinars, Whats App and many other media platforms.

Most of our patients are from poor socioeconomic strata with a daily wage earning. Travelling and stay during the pandemic was the major concern while maintain the social distancing [1-3]. Amidst the crisis we decided to treat our patients while keeping in mind the emerging pandemic. Rational use of the resources was the need of the hour, to protect the health care workers and the patients. As we started, we formulated a committee of clinicians, nursing staff, paramedics and hospital administration. The work given to them was to ensure the guidelines issued by government is being followed. COVID-19 rendered clinical practice to a minimal, but with cancer patients we needed to strike the balance between safety and early treatment to our patients. Earlier there was lot of conflict between medical associations and institutions regarding the protocols to be followed for the treatment but fortunately everyone had an opinion that surgeries of oral cavity nasopharynx and trachea had the highest viral load and have the highest risk of infecting COVID-19 [4-5].

The Indian council of Medical Research ICMR released guidelines for COVID-19 on 17 march 2020.

According to them testing was mandatory for:

- 1) All people who travelled by air
- 2) Anyone in contact with a confirmed positive patient
- 3) HCW involving in treating positive patients

There was no mention of asymptomatic patients who had to undergo major oral surgery, delaying which can lead to progression of disease and advancement to stage of in operation. We attended webinars and read extensively as to how to help our patients in pandemic. Finally, we came to the conclusion that every pre-operative asymptomatic patient should be first tested for COVID-19 with RTPCR to protect our HCWs also. After obtaining permission from administration, we started operating for oral cancers. We started admitting and operating patients amidst pandemic after getting their RTPCR done followed by HRCT chest.

MATERIAL AND METHODS

On the day of admission patient's nasopharyngeal swab was taken wearing PPE kits and facial shields. The next day when patient is reported negative, then is sent for HRCT chest. Radiologists then reported them according to CORADs score. CO-RADS rates suspected COVID-19 pulmonary involvement on a scale of 1 (very low) to 5 (very high) (table 1). The system is intended for use in patients with moderate to severe symptoms of COVID-19. CO-RADS, for COVID-19 Reporting and Data System, is a categorical assessment scheme for CT of the chest in patients with suspected COVID-19, representing the level of suspected pulmonary involvement. The substantial agreement between the observers and its discriminatory value makes it suitable for use in clinical practice [6-7].

Table 1: CO-RADS and CT findings

| CO-RADS scoring | Suspicion of COVID-19 | CT findings |
|-----------------|-----------------------|---|
| CO-RADS 1 | Very Low | Normal/ Non infectious |
| CO-RADS 2 | Low | Findings consistent with other infections but not COVID |
| CO-RADS 3 | Equivocal/Unsure | Findings consistent with COVID 19 but also other infections |
| CO-RADS 4 | High | Findings suspicious for COVID 19 |
| CO-RADS 5 | Very High | Findings typical for COVID 19 |

As per the guidelines patient had to wear three ply surgical mask and a transparent shield and surgeons and anaesthesiologists to wear PPE kits in OT. Video assisted laryngoscopy is recommended for Tracheal Intubation. Single use items were discarded accordingly and reusable items were disposed off according to the COVID 19 Biomedical waste disposal guidelines. We operated only on preoperatively confirmed COVID negative patients, all necessary precautions were taken during and after surgery by the Operating Surgeons and all HCWs involved in the procedure.

RESULT AND DISCUSSION

During our study period we operated 23 cases of oral squamous cell carcinoma. There were 18 male and 5 female cases in age group of 35-65 (figure1). Out of 23 cases 7 had early stage (T1-T2) and 16 had advanced stage (T3-T4) of carcinoma (figure 2). 15 cases had buccal mucosa as a primary site of cancer, 1 case had Synchronous primary of Buccal mucosa and Papillary carcinoma of Thyroid Bethesda category V, 4 cases of Squamous carcinoma of Tongue, 1 case had cancer of Mandibular alveolus, 1 patient had upper gingivobuccal sulcus as primary site and there were 1 cases of floor of mouth Squamous cell carcinoma (Figure 3). Out of these 23 cases, 4 were recurrence of squamous cell carcinoma within 2 years of treatment of primary disease and 2 cases were post 2 cycles of Neo Adjuvant Chemotherapy [8]. Oral cancer is one of the top three cancers in the world and is one of the leading causes of death. Incidence is highest in India and south Asian countries. In India 20 in 100000 population is affected by oral cancer and over 5 people die every hour of oral cancer every day [9-10]. Oral cancer is any malignant neoplasm which is found on the lip, floor of the mouth, cheek lining, gingiva, palate and the tongue [11]. Most common risk factors are alcoholism, tobacco usage in the form of cigarettes, chewed tobacco, betel nut and human papilloma virus (HPV). In India, 90 -95% of the oral cancers is squamous cell carcinoma. Our hospital caters to around 5000 new oral cases every year. After the pandemic has set in our priority was to strike the balance between the need of cancer patients and safety of HCWs. Our aim was to timely treat the oral cancer before the progression of disease with the intent of curing the cancer knowing that viral load of COVID-19 is maximum in oral cavity[12-13]. Also, while treating these patients it was extremely important to use our clinical sense to ensure a proper case selection so as to justify the use of the available setup (hospital beds and ventilators) [14].

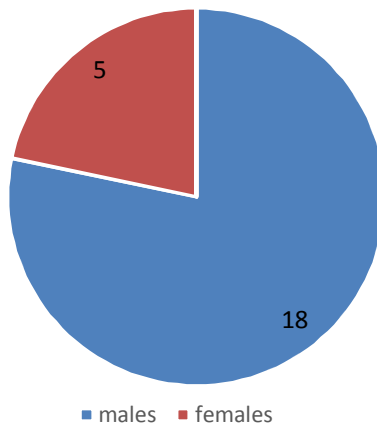


Figure 1. Gender ratio

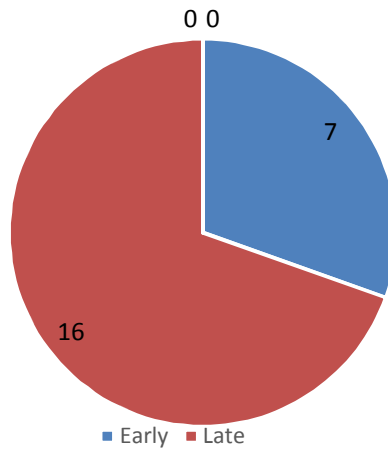


Figure 2. number of carcinoma stages

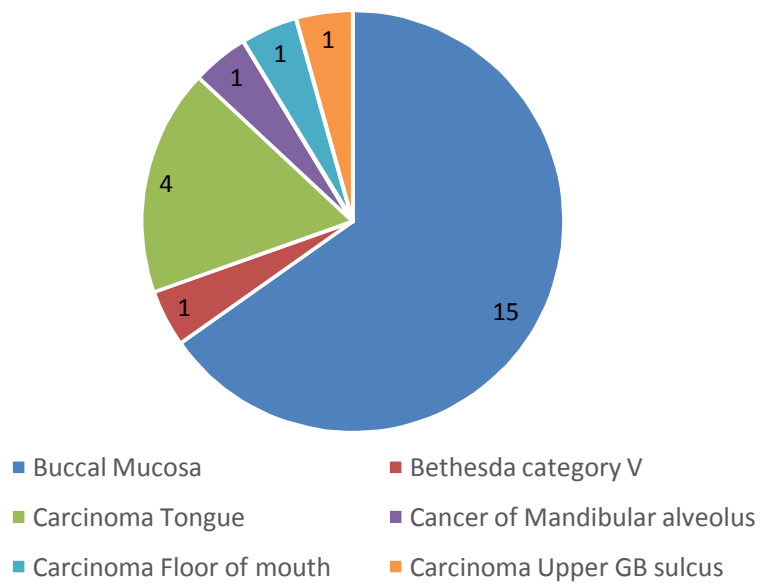


Figure 3. PERCENTAGE OF Distribution

CONCLUSION

During this pandemic what we learnt is that we should make our protocols institution wise for prioritizing surgical treatment amid pandemic such that more patients might not suffer as they already are from COVID. Our commitment was to treat operable cancers within time limit, which was achieved with the help of hospital administration. We are happy to make way for other surgeons too who can serve the mankind amid pandemic like true corona warriors.

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