

CHAPTER 6

CONCLUSION

6. Conclusion

6.1 Key Findings

The present clinical Randomized Controlled Trial was completed with a one-year follow-up post chemo-radiotherapy (CT-RT) in patients with oral carcinoma. The findings of the trial are enumerated as under:

1. There was a significant low increment in DMFT scores from one month to one-year recall. Fluoride application on the tooth surface in patients with head and neck cancer including oral carcinoma is effective in preventing a rapid increase in DMFT scores over a period of one-year post CT-RT.
2. Fluoride applications in form of both gel and varnish are equally efficient in reducing DMFT scores in patients who have received CT-RT.
3. Monthly and quarterly fluoride application regimen has the same effect in reducing DMFT scores over a period of one-year post CT-RT.
4. Oral health-related quality of life, OHIP-14 score doubles in the first month after radiotherapy.
5. Fluoride application intervention as part of SOCP significantly improves oral health-related quality of life scores in terms of OHIP-14 scores.
6. Patients who have insufficient mouth opening for oral care have a poor oral health-related quality of life scores in terms of OHIP-14 scores.
7. OHIP-14 scores improve in patients who are enrolled in supportive oral care protocol (SOCP)

8. Supportive oral care protocol is a validated and proven protocol for effective, efficient, and structured management of oral and dental rehabilitation of such patients.

6.2 Limitation of the study

The present study shows the effect of fluoride intervention on the dental parameter (DMFT) and oral health-related quality of life parameter (OHIP-14). A long-term recall of these patients for 5 years or more would shed insight on long-term compliance. Long-term data on the adherence to the fluoride treatment and the SOCP would document the reduction in radiotherapy-related late side effects and its effect on the quality of life. We would continue this cohort of patients for the long term with the intent to collect data to form the long-term impact of SOCP in head and neck cancer patients to overcome this limitation.

6.3 Recommendations:

- Based on the results from the present Randomized Controlled Clinical trial we recommend, the inclusion of topical fluoride as an essential component in the management of dental decay and its sequel in the head and neck cancer patients including oral carcinoma.
- We propose based on clinical experience from this trial, the use of monthly fluoride application either gel or varnish for the first year post-CTRT followed by quarterly application thereafter for lifelong for close observation and reinforcement.
- Application of topical varnish is advised in patients with limited mouth opening due to the nature of sustained release and ease of application as compared to fluoride gel.
- SOCP is recommended as an effective protocol specifically designed for the Indian population based on their Oro-dental disease burden and treatment needs and improves oral health-related quality of life.
- The inclusion of Dental oncology and rehabilitation expert as an integral part of the multi-disciplinary team of cancer care is highly recommended.
- We recommend enrolling patients for oral care at the point of diagnosis of cancer and thereafter till lifetime follows up is important. This reduces the incidence of radiation decay and the risk of osteoradionecrosis.