

## Head and Neck Radiotherapy; An Advice for General Practitioners

**Mohammed Assayed Mousa\***

*Lecturer, Department of Prosthodontics, Faculty of Dentistry, Jouf University, Sakaka, Jouf, Saudi Arabia*

**\*Corresponding Author:** Mohammed Assayed Mousa, Lecturer, Department of Prosthodontics, Faculty of Dentistry, Jouf University, Sakaka, Jouf, Saudi Arabia.

**Received:** September 25, 2019; **Published:** September 30, 2019

Approximately 90% of head and neck cancer (HNC) are squamous cell carcinoma (SCC). Most HNC are treated with surgery or radiotherapy or, a combination of both. The surgical treatment itself has significantly impacts on eating, swallowing, and talking which affect social interaction and functional performance. The radiotherapy has also some adverse effects which may have massive effects on remaining dentition in term of caries and periodontal diseases [1].

One of the most common side effects caused by radiotherapy is xerostomia, which happened in the second week after starting the treatment. Xerostomia may be temporary or permanent according to the dose of radiation. Development of xerostomia lead to reduction the protective function of saliva in terms of remineralization of the incipient caries, buffering capacities and PH values which in turn increase development of radiation caries and periodontal diseases. Xerostomia can be diagnosed by clinical observation and measuring of salivary flow. Xerostomia can be managed by keeping mouth hydrated through advising the patient to keep bottle of water with him, to sip the water rather than swishing it, to use local salivary gland activators like sugar free chewing gum, to use saliva substitutes such as Biotene Oralbalance and Glandosane or even refer to Oral medicine specialist to used systemic sialagogues like Pilocarpine and Cevimeline. Optimizing oral hygiene measures is crucial to avoid side effects of xerostomia on the teeth. This can be done through regular dental recall, using fluoride varnish, and rinsing with 0.12% Chlorohexidine mouth wash twice daily for two weeks followed by twice weekly [2].

Mucositis is also debilitating side effects of radiotherapy. It impacts the patient quality of life in term of pain, soreness in mouth and throat, inability to eating, swallowing, and wearing the removable prosthesis. It also can lead to septicemia which may lead to life threatening condition that may interrupt the process of radiotherapy. Mucositis can be managed using salt and soda mouthwash or chlorohexidine mouthwash containing Lidocaine and Maalox. Maintaining good oral hygiene with soft tooth brush, advising the patient to avoid hard and crushable food and use ice chips, and to drop his removable prosthesis all are preventive measures to decrease the side effects of mucositis [3].

Osteoradionecrosis (ORN) can be considered as the most serious sequelae of HN radiotherapy. It can be diagnosed as area of irradiated bone that become exposed through overlying mucosa and fail to heal for more than three months. Once it is developed it extremely difficult to be managed. To avoid the development of ORN, any simple restoration and non-surgical periodontal treatment should be carried out before starting of radiotherapy. Unrestorable teeth, teeth with bifurcation involvement, and impacted teeth should be extracted at least 3 weeks before starting of the treatment. In case that ORN developed, a soft diet should be advised, soft stent to protect the area from trauma should be fabricated to the patient, use of hyperbaric Oxygen, excision of necrotic bone to allow primary closure or even hemimandibulectomy and reconstruction in the sever cases may be the only option to manage ORN [3].

**Bibliography**

1. Dreizen S., *et al.* "Oral complications of cancer radiotherapy". *Postgraduate Medicine* 61 (1977): 85-92.
2. Joyston-Bechal S. "Prevention of dental diseases following radiotherapy and chemotherapy". *International Dental Journal* 42.1 (1992): 47-53.
3. Thorn JJ., *et al.* "Osteoradionecrosis of the jaws: clinical characteristics and relation to the field of irradiation". *Journal of Oral and Maxillofacial Surgery* 58.10 (2000): 1088-1093.

**Volume 18 Issue 11 November 2019**

**©All rights reserved by Mohammed Assayed Mousa.**