Oral health and cancer patients – in need of preventive dentistry interventions

Oral health in cancer patients is often neglected, although chemo- and radiation-therapy associated oral complications may have serious implications, such as negatively affecting patients' quality of life, leading to systemic disease, or even interfering with cancer therapy. For example, taste alterations, mucositis, increased bleeding tendency, neurotoxicity-related pain, and xerostomia related to salivary gland dysfunction are common oral complications of cancer treatment, which in turn often result in a compromised nutritional status. Further, immunosuppression due to chemotherapy may result in aggravation of pre-existing oral lesions, and pre-existing fungal, viral, and/or bacterial oral infections may provoke systemic infections, occasionally disrupting the cancer treatment plan.[4,5]

Head and neck cancer (HNC) patients (ca 500,000 new cases each year worldwide, ca 3% of all cancers; 30% increase within the last 25 years)[2,3] are of particular interest in terms of oral complications. Except for complications related to chemotherapy, radiation therapy additionally results in: a) increased lifelong risk of caries, due to permanent salivary gland damage and persistent xerostomia, and b) increased risk of osteonecrosis of the jaws, due to compromised osseous blood supply and decreased healing capacity. In this context, recent reports have shown that the vast majority (ca 80%) of HNC patients present with dental treatment needs[7] – mainly regarding caries and periodontitis – at the timepoint of cancer diagnosis. Further, a major portion of newly diagnosed HNC patients do not consult a dentist prior to cancer treatment, even though a dental examination has been recommended, and only 30% of HNC patients receive regular dental check-ups after cancer therapy; hence, most of HNC patients continue to present with high dental treatment needs.[1,8] Considering the fact that poor oral hygiene, poor oral health status, and infrequent dental monitoring are associated with an increased risk for primary HNC development,[6] it is reasonable to assume that these factors may also increase the risk of cancer recurrence.

Thus, there is an apparent urgency for structured preventive dentistry interventions to reduce the likelihood of systemic complications of oral aetiology in cancer patients and oral complications in HNC patients. The establishment of 'on-site dental support' (ie, in-hospital dental units including multidisciplinary personnel with experience in treating cancer patients), that is involved in cancer treatment planning (eg, knowledge of the field of radiation, treatment schedule, etc.) would be a step in the right direction. The presence of such units would likely improve oral health prior to cancer treatment, facilitate maintenance of the results after treatment, and probably contribute to early recognition of cancer recurrence and/or secondary malignancies.

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