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Editorial

Importance of Oral Care Before, During and After Chemotherapy

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Editorial

Within the most current concepts of health, it is of fundamental importance to consider the patient in a holistic manner. A multidisciplinary team should form the oncology group, especially in the hospital setting. The role of a dentist on this team is to diagnose, prevent and minimize the immediate effects of chemotherapy and/or radiotherapy as well as identify the effects of treatment to improve the quality of life of patients.

The objective of the protocol is to establish a standard for the care of patients with cancer. Emphasize the importance of oral health, in support for outcomes associated with oral care health, the knowledge of oral health for effectiveness in continuing the therapeutic treatment of cancer and awareness of effects acute and late in the mouth from cancer therapy: prevention of local and systemic infections, control pain, maintain oral functions, reduce side effects and improve the quality of life of patients.

Hematopoietic Stem Cell Transplantation (HSCT) is a procedure that requires conditioning to high doses of chemotherapy and/or radiotherapy. Dental treatment prior of HSCT is important. The oral mucosa and teeth should be examined using panoramic radiography to document oral status prior to HSCT. Moreover, such patients need to develop a specific oral hygiene regimen, the instructions for which should be clear and concise. Motivation and understanding with regard to oral care can have a considerable impact during HSCT [1]. Bacterial plaque should also be evaluated, as this is a key factor to the development of gingival and periodontal disease and can contribute to acute infection as well as systemic disorders.

For better orientation, dentists should employ the following three-phase approach [2].

Before HSCT

The dental evaluation should be initiated with a panoramic radiograph to gain a broad view of dental treatment and remove any sources of active or potential infection in the oral cavity. Acute and chronic oral infections, such as dental caries and periodontal disease, as well as teeth with questionable prognoses justify an aggressive approach, as any odontogenic infection in an immune suppressed patient can progress to a systemic infection with a possible risk of death. The goal of dental care is to establish a standardized oral evaluation.

During Chemotherapy/HSCT

Prevention and resolution of mucositis: It is important to maintain good oral hygiene and perform oral cultures for bacteria and fungi on a weekly basis. Laser therapy can be used to minimize mucositis as well as reduce oral discomfort and pain [3-6]. Oral functions should be maintained, such as nutritional intake, fluid intake and the ability to speak [7].

After Chemotherapy/HSCT

Another consequence of allogenic HSCT is the possibility of Graft Versus Host Disease (GVHD). GVHD is the most frequent reason for a long-term side effects and a reduction in quality of life11 and disease recurrence remain a challenge [8]. The incidence of GVHD is lower in children than adults, but the actual incidence is difficult to quantify due to heterogeneity regarding prophylaxis of the disease and the stem-cell source. Acute GVHD is characterized by manifestations of the oral mucosa, such as erythema, atrophy, ulcers and lichenoid infection, developed within a period of 100 days. Chronic GVHD develops after 100 days and the oral cavity can be the first and only site of chronic GVHD, the manifestations of which include mucosal atrophy, lichenoid infection, pain, peri-oral fibrosis and xerostomia (dry mouth). The diagnosis of chronic GVHD is based on clinical findings and a biopsy of a small salivary gland in the lower labial mucosa. Another challenge regards the possibility of squamous cell gingival carcinoma [9] as a second form of cancer that with bone marrow aplasia and Fanconi anemia as well as those with solid tumors of the oral cavity stemming from radiotherapy [10].

In the presence of tooth mobility and/or mandibular or maxillary bone re-sorption, a biopsy of the region should can affect transplant patients be performed. Carcinoma can also occur on the tongue, lips and buccal mucosa [10]. Xerostomia is another secondary effect of radio chemotherapy [11,12]. An oral evaluation should be performed every six months for such patients during the first year and antibiotic prophylaxis should be performed, especially in the presence of chronic GVHD.

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