

Oral hygiene protocol in response to the needs of the head and neck radio treated patient

I.Casula, M. Bianchi, V. Brognoli\*, C. Gregorini, L. Zanardini, E. Marchesini

Dental School – Università degli studi di Brescia

**INTRODUCTION:** Head and neck cancer includes mouth, larynx, pharynx and salivary glands cancers and represents about 5% of all Italian tumors and it is located at the 5th place as frequency. Every year about 12.000 new cases are diagnosed and to date the therapeutic treatments for the above mentioned tumors are: surgery, radiotherapy and chemotherapy, often combined. The oral complications, associated with radiotherapy (xerostomia, mucositis, caries, trismus, candidiasis, dysgeusia, dysphagia and osteoradionecrosis), are many and they are difficult to manage, therefore it is necessary to identify protocols and means of assistance able to relieve the discomforts and to improve the quality of life of the patients.

**AIM:** The aim of this study is to evaluate the efficacy of oral hygiene in response to the particular needs of the head and neck radio treated patient..

**MATERIALS AND METHODS:** The study was conducted in order to detect and describe the oro-dental characteristics of patients undergoing radiotherapy and to detect any oral health needs. 15 head and neck radio treated patients (10 f., 5 m.) aged between 20 and have been selected.

During the first visit, at t0, were performed: extra and intra-oral examination, detection of oral health indexes : plaque index and bleeding index of Ainamo & Bay (1975), motivation and home oral hygiene education; professional oral hygiene performed by the dental hygienist using: mechanical ultrasonic instrument, manual instrument above and below the gum; polishing with soft and non-abrasive cups on a low speed handpiece. Prophylaxis paste used: Elmex sensitive professional (RDA <40).

At t1 (3 months) and at t2 (6 months) were performed: extra and intra-oral examination, detection of oral health indexes, motivation and home oral hygiene education, professional oral hygiene.

**RESULTS AND DISCUSSION:** For the comparison of the data it was used the T-Test for paired data. Data were compared at T0 vs T1, T0 vs T2 and T1 vs T2 for both indexes (PI, BoP). Descriptive statistic shows as the above mentioned indexes were considerably and significantly reduced from t0 to t2. *Plaque index average:* t0: 79%, t1: 51%, t2: 35%, *Bleeding index average:* t0: 69%, t1: 44%, t2: 22%. In all the comparisons it has been found a statistically significant inferential difference ( $p < 0,0001$ )

**CONCLUSION:** The applied protocol is efficacious in oral hygiene in response of the particular needs of the patient undergoing radiotherapy to head and neck. Despite the real improvement in survival is linked to early diagnosis, we should not underestimate how patients can benefit from physical and psychological help in control of the side effects of chemo-radiotherapy. The role of the oral hygienist is essential in the follow-up of oral hygiene and food habits, in the short, medium and long term.