conferenceseries.com

Dentistry 2017, 7:6(Suppl)
DOI: 10.4172/2161-1122-C1-018

24th World Congress on

Dentistry and Oral Health

June 12-13, 2017 London, UK

Cancer caused by dental implant and its treatment

Hesham Magdy Elgamely
Delta University for Science and Technology, Egypt

Background: The use of implants for oral rehabilitation of edentulous spaces has recently been on the increase, which has also led to an increase in complications such as peri-implant inflammation or peri-implantitis. Chronic inflammation is a risk factor for developing oral squamous cell carcinoma (OSCC).

Objectives: The objective is to review the literature of cases that associate implant placement with the development of oral cancer.

Study Design: We present two clinical cases and a systematic review of literature published on the relationship between oral cancer and implants.

Results: We found 13 articles published between the years 1996 and 2009, referencing 18 cases in which the osseo-integrated implants are associated with oral squamous cell carcinoma. Of those, six articles were excluded because they did not meet the inclusion criteria. Of the 18 cases reported, only seven cases did not present a previous history of oral cancer or cancer in other parts of the body.

Conclusions: Based on the review of these cases, a clear cause-effect relationship cannot be established, although it can be deduced that there is a possibility that implant treatment may constitute an irritant and/or inflammatory cofactor, which contributes to the formation and/or development of OSCC. The aim of this retrospective study was to evaluate the survival of dental implants placed after ablative surgery, in patients affected by oral cancer treated with or without radiotherapy. We collected data for 34 subjects (22 females, 12 males; mean age: 51±19) with malignant oral tumors who had been treated with ablative surgery and received dental implant rehabilitation between 2007 and 2012. Postoperative radiation therapy (less than 50 Gy) was delivered before implant placement in 12 patients. A total of 144 titanium implants were placed, at a minimum interval of 12 months, in irradiated and non-irradiated residual bone. Implant loss was dependent on the position and location of the implants (P=0.05–0.1). Moreover, implant survival was dependent on whether the patient had received radiotherapy. This result was highly statistically significant (P<0.01). Whether the implant was loaded is another highly significant (P<0.01) factor determining survival. We observed significantly better outcomes when the implant was not loaded until at least 6 months after placement.

hesham.elgamely2010@yahoo.com