

Irradiated patients and success rate of dental implants: a systematic review and meta-analysis

Nobrega, A.S.; Santiago-Junior, J.F.; Almeida, D.A.F.; Santos, D.M.; Pellizzer, E.P.; Goiato, M.C.

The aim of this study was to perform a systematic review to evaluate the success rate of implants placed in irradiated bone tissue when compared to implants placed in non-irradiated area. A search in the databases EMBASE, Cochrane and PubMed / Medline up to December 2013 was performed in order to identify clinical trials addressing the theme. A systematic review was conducted following the principles set by PRISMA. The relative risk (RR) for implant failure and survival curves were calculated considering a confidence interval of 95%. The analysis of heterogeneity was assessed using the funnel plot. A total of 40 studies involving 1,926 patients and 9,039 dental implants, was selected. The survival curves indicated a survival rate of implants installed in irradiated bone tissue of 84.3%. The meta-analysis indicated a statistically significant difference ($p < 0.0001$) in the item success rate of implants placed in irradiated area when compared to implants placed in non-irradiated area. We conclude that dental implants placed in irradiated area of the oral cavity have a lower survival rate than those installed in non-irradiated area and possible complications are high-risk threat throughout the life of these patients. Therefore, close monitoring is necessary in order to avoid complications, reducing the chances of failure.

Keywords: Dental Implants; Radiotherapy; Review; Meta-Analysis.



4º Congresso Odontológico de Araçatuba
34ª Jornada Acadêmica "Prof. Dr. José Eduardo Rodrigues"
10º Simpósio de Pós-Graduação "Prof. Dr. Alício Rosalino Garcia"
3º Encontro de Técnicos em Laboratório "Rosimeire de Oliveira M. Gon"
6º Encontro do C.A.O.E.

21 a 24 de maio de 2014
Faculdade de Odontologia de Araçatuba – UNESP

Presidente: Prof. Dr. Fellippo Ramos Verri
Vice-Presidente: Prof. Dr. Marcelo Coelho Goiato

373 resumos apresentados