

39th Asia-Pacific

DENTAL AND ORAL CARE CONGRESS

October 26-28, 2017 Osaka, Japan

A comparison study of immediate implant placement into compromised or fresh extraction sockets: An experimental study in dogs

Jungwon Lee, Ki-Tae Koo, Yang-Yo Seol and Yong-Moo Lee
Seoul National University, South Korea

Aim: The aim of this study was to identify whether chronic infection affects the histological results of immediately placed implants in dogs. The secondary outcome was to compare the histological results of immediate implant placement according to implant surface and healing time.

Materials & Methods: Chronic endodontic-periodontic combined lesions were induced on the secondary, third and fourth premolars of the mandible in six beagle dogs for three months with the contralateral premolars used as controls. Implants were placed immediately in the sockets of infected sites (IS) and non-infected sites (NIS) following tooth extraction. A total of 72 implants were placed with surfaces including machined (M), sandblasted with alumina and acid etched (SA) and chemically modified SA with calcium solution (CA). Three dogs were euthanized at one month and the others were sacrificed three months after immediate implant placement and prepared for histologic and histomorphometric analysis. Three-way analysis of variance was used for statistical analysis (site; IS vs. NIS, surface; M, SA and CA, time; 1 months vs. 3 months).

Results: Site, surface and time resulted in statistically significant differences in bone to implant contact (BIC). Three-way analysis of bone density did not find statistically significant differences. Time resulted in statistically significant differences in bone area fraction occupied between the threads.

Conclusion: Complicated infection might jeopardize bone healing and osseointegration of immediate implants. When implants are immediately placed in an infected extraction socket, sufficient healing time is needed to achieve adequate osseointegration and a rough surface implant should be used.

Biography

Jungwon Lee is currently pursuing his PhD from Seoul National University, South Korea. He is the Clinical Professor of Seoul National University Dental Hospital from 2016. He has published 2 papers in reputed journals.

jungwonlee.snudh@gmail.com

Notes: