

## Evaluation of the Osseointegration Associated with Placement Time of Dental Implants After Tooth Extraction

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It is important to reduce the number of surgical procedures and the interval between the removal of the tooth and the insertion of the implants.

In this study, Made- to-order implants based on the data obtained from former investigated study to fit in with beagle mandibular premolars were used in four beagles with a mean age of 2 years and mean weight of 12 kg. This dental implant consist of submerged, pure titanium bar 3.3mm in diameter and 7mm in length with a screw design,

In each dog, both third and fourth mandibular premolars were extracted so as to create 2 edentulous areas. Implants were inserted into four extraction sites on day 0(B0), 14(B2), 28(B4), 420(B6) after tooth extraction, respectively. Radiographs were obtained immediately after fixture installation, and every week for 3 months, entire experimental periods. The animals were euthanized at 12 weeks postsurgery and block biopsies were prepared for histologic and histometric analysis.

Radiographic evaluation revealed no remarkable differences among the 4 groups. In bone-implant contact, the mean value of the B0 group is significantly higher for that in B2 group. No statistically significant differences were found among any other groups. In inside bone volume, the mean value of the B6 group is significantly higher for that in B4 group, but no statistically difference in any other groups. In outside bone volume, the mean value of the B0 group is significantly higher for those in other groups.

Followed by our study, the placement of implants in fresh extraction sockets could be allowed proper clinical healing.

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