Discussion

With 3D models, crown length can be measured in the most clinically relevant manner. However, it is not possible to define the actual marginal bone level around the neck of the implant on 3D models, which is needed for calculating the clinical crown-implant ratio. Aiming at the most realistic clinical scenario for scientific research, both radiographs and 3D models are necessary, and outcomes must be combined. Calculations have shown that using the incorrect crown length will result in a statistically different crown-implant ratio.

The Bland and Altman plot showed strong agreement in the difference per patient between determinations of crown length with both methods. The difference of approximately 1 mm is rather consistent throughout the study group (Fig 3). Therefore, a correction factor of diminishing the crown length measured on the radiograph by 1 mm could be used. Although it is not the actual 3D measured value of the crown length, it is more realistic than taking the value of radiographs without a correction factor.

Conclusions

The statistically different outcomes of the two methods have limited clinical relevance but may have important implications in research. A new gold standard for crown measurement should be defined.

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Literature Abstract

Tongue piercing: The effect of material on microbiological findings

Biofilms can form on oral piercings, and they may serve as a reservoir for bacteria. The anaerobic conditions in the piercing channel may further encourage growth of the bacteria associated with periodontitis. Oral piercings can be composed of various materials, and this study investigated whether there are differences in the bacteria collected from tongue piercings made of different materials. Eighty-five subjects with tongue piercings participated in the study. After a baseline dental examination, sterile piercings of four different materials (stainless steel, titanium, polytetrafluoroethylene, and polypropylene) were assigned randomly to the subjects. After 2 weeks in situ, the piercings were removed, and the microbiologic samples collected were processed by the checkerboard DNA-DNA hybridization method. The clinical data collected revealed that no subjects were affected by localized periodontitis. However, 28.8% of patients had lingual recession, with approximately half of these occurring on the mandibular incisors. Five percent of subjects reported chipping on one tooth. There was a statistically significant difference in relative microbial counts between the tongue, piercing channel, and piercing stud. The tongue had higher proportions of bacterial species compared to the piercing channel and the stud. Higher proportions of bacteria were also found on the studs made of stainless steel compared to polytetrafluoroethylene or polypropylene piercings. The low bacterial counts found in the piercing channel and stud imply that a tongue piercing may not contribute to increased risk of bacterial infection or gingival problems. However, the stud material may have an effect on the prevalence of bacteria, with stainless steel being the least favorable.

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