Dental implants in individuals with osteogenesis imperfecta: a 6-year follow-up study

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Introduction

In Norway, individuals with osteogenesis imperfecta (OI) display twice as many missing teeth as compared with the general population⁴, and some of them have received dental implant treatment to replace the missing teeth. In order to determine the success rate of implant treatment in these individuals, we have previously examined and reported⁵ on a group of individuals with OI who already had dental implants (retrospective study), as well as those in need of such treatment (prospective study).

Methods

The primary prospective study included seven participants with OI (20 implants), of whom four participants (11 implants) agreed to participate in the present study (Table 1), three participants had passed away. The participants were initially examined after an average of 19 months (range 11-26 months) and followed up after an average of 93 months (range 91-109 months), subsequent to prosthetic loading (Table 2). The implants were clinically and radiographically examined (Table 2, 3 & 5) and the participants were requested to subjectively evaluate the implant treatment (Table 4). A visual analogue scale ranging from 0 as the worst to 10 as the best score was used.

Results

In the primary study (Table 2 & 5), no implants were lost and only 1 mm bone loss was registered around 2 implants in one participant. One implant was removed after 76 months due to an implant neck fracture unrelated to disease. In the follow-up study, 4 mm bone loss was observed around 2 implants. Four implants showed only 1 mm bone loss, 2 of which had the same level of bone loss at the primary study. No bone loss was detected around the remaining 4 implants. Objective and subjective evaluation of implant treatment, respectively, showed overall satisfaction of 9.1/10 and 9.9/10 after the follow-up study (Table 3 & 4).

Conclusion

The long-term follow-up study indicated that implant survival rate and implant recipient satisfaction towards implant treatment were fairly high in these participants.

Take home message

Dental implant treatment has a reasonably high success rate in individuals with OI.

References