Long-term survival rate of dental implants in individuals with osteogenesis imperfecta: a 6-year follow-up study

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Background
Except from a few case reports, no long-term study on the success rate of dental implants in a group of individuals with osteogenesis imperfecta (OI) has been reported.

Aim
To perform a long-term follow-up of a previous prospective study in a group of individuals with OI after a mean observation time of 1.5 years.

Methods
The previous study included seven participants (20 implants), of whom four participants (11 implants) agreed to take part in the present study (Table 1). Three former participants had died. The participants were followed up for an average of 93 months subsequent to prosthetic loading. The implants were clinically and radiographically examined. Objective and subjective evaluations were recorded using a visual analogue scale ranging from 0 as the worst to 10 as the best score. A mean of these evaluations is presented as an indicator of overall satisfaction.

Results
In the previous prospective study (Table 2 & Figure 1), no implants were lost and only 1 mm bone loss was registered around two implants in one participant. One implant was removed after 76 months due to an implant neck fracture unrelated to disease. In the present study (Table 2 & Figure 1), two implants showed 4 mm peri-implant bone loss and four other implants showed only 1 mm peri-implant bone loss, two of which had the same level of bone loss at the primary study. No bone loss was observed around the remaining four 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 findings showed an implant survival rate of 91% (100%, excluding the implant-neck fracture) and high recipient satisfaction towards implant treatment in these individuals with OI.

References