



Treatment of mild peri-implantitis using a novel chitosan device - a multicenter consecutive case series

Wohlfahrt JC, Zeza B, Evensen BJ, Jansson H, Pilloni A, Roos-Jansåker AM, Aass AM, Klepp M, Koldsland OC

Hypothesis and/or Aim

The null hypothesis of this study was that no significant difference in the reduction in the parameters of peri-implant inflammation would be observed after debridement with a chitosan brush. The aim was to evaluate a chitosan brush for the treatment of dental implants with mild peri-implantitis.

Materials and Methods

In this six-month multicentre prospective consecutive case series performed in six different periodontal specialist centres, 63 implants in 63 patients were included. The subjects had mild peri-implantitis defined as bone loss of 1-2 mm, pocket probing depth (PPD) ≥ 4 mm and a positive bleeding on probing (mBoP) score. The patients were examined at baseline and after two, four, 12 and 24 weeks, and radiographs were taken at baseline and at three and six months. Treatment of the implants with the chitosan brush seated in an oscillating dental handpiece was performed at baseline and at three months.

Results

Significant reductions in both PPD and mBoP were observed at all time points compared with the baseline clinical measurements ($p < 0.001$). Stable reductions in PPD and mBoP were evident up to six months after the initial treatment. None of the 63 implants lost osseous support, as seen on radiographs.

Conclusion

Within the limitations of this case series, an oscillating chitosan brush appears to be an efficient method for the debridement of dental implants with mild peri-implantitis.

Publication

An oral presentation and a poster of this study was presented at the 25th Annual Scientific Meeting of the European Association of Osseointegration October 2016, Paris, France. This study has also been submitted to *International Journal of Implant Dentistry (DGI)* and the Japanese Society of Oral Implantology (JSOI) and is under Peer Review.