

## Peri-implantitis - Long term clinical results and selection to overcome the limitation of surgical treatment

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Over the past few decades, numerous studies have been conducted to enhance osseointegration of dental implants, leading to significant improvements in long-term prognosis. However, implant treatment failures still occur frequently, prompting ongoing research efforts for prevention and resolution.

In 1993, the 1st European Workshop on Periodontology defined "peri-implant disease" as a comprehensive term for all inflammatory processes occurring around dental implants (Albrektsson & Isidor 1994). Subsequent research has addressed peri-implant disease from diagnosis to treatment comprehensively, at the 6th European Workshop on Periodontology (J Clin Periodontol 2008;35(suppl)).

Peri-implant mucositis refers to a reversible inflammatory condition localized to soft tissue around the implant without bone loss, while peri-implantitis involves both soft tissue inflammation and bone loss. The treatment goal for peri-implantitis with bone loss aims to remove inflammatory lesions around the implant, halt disease progression, and maintain healthy peri-implant tissues. Restoration of lost peri-implant tissues and ensuring implant functionality are also objectives.

Treatment methods for peri-implant disease include non-surgical and surgical approaches. Lang (2000) suggested that cases with pocket depths exceeding 5 mm and bone loss of 2 mm or more require a surgical approach, with the choice between resective and regenerative techniques depending on the extent and form of bone loss.

When deciding on surgical treatment, consideration of the peri-implant biotype is essential, as different biotypes exhibit varying patterns of peri-implantitis progression, necessitating appropriate treatment selection (PERI-IMPLANT DISEASE & GBR by 정철웅, 나래출판사, 2011).

Reconstructive techniques involve removing inflammatory tissues around the implant and pre-treating contaminated implant surfaces with decontamination, followed by using bone grafts and membranes. Several studies have reported re-osseointegration and significant bone fill in defect areas following regenerative treatments. Thus, this presentation is aimed to report long-term outcomes of cases treated for peri-implantitis using regenerative techniques. Additionally, various cases treated with resective techniques, as well as cases requiring implant removal followed by re-implantation due to the inability to perform surgical treatment, are reported. A new form of implant, the Narrow Multi-level Implant, developed to facilitate implant placement while minimizing bone grafting, has also been applied clinically in diverse cases.

### Profile

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