AAID MaxiCourses

The American Academy of Implant Dentistry founded in 1993 is the first professional organization in the world dedicated to implant Dentistry. Its members include general dentists, Oral and Maxillofacial Surgeons, Prosthodontists, and others interested in the field of Implant Dentistry. The Academy continues to expand the opportunities for dentists to obtain comprehensive, non-biased curriculum in their scope of practice. The recent launching of the MaxiCourse Japan after approval brings to the number the MaxiCourses offered around the world. The First Annual AAID MaxiCourse in UAE was offered in 2009 in Abu Dhabi and to date 9 other editions –Consultees. Specialists and general dental practitioners have graduated from the Program. Currently the UAE Program is in its Eighth Year. The Program consists of 5 modules and each Module is of 6 days with a didactic and Clinical Component with in depth review of surgical and prosthetic protocols based on scientific and evidence based practice. It is a non-commercial, non-sponsored course covering a wide spectrum of implant types and systems. The Eighth Annual Program was accredited by the Health Authority of Abu Dhabi for 295.5 CME hours.

MaxiCourses are the preferred means for a doctor to obtain comprehensive foundation in Implant Dentistry says Dr. Rod Stewart, Chair of AAID’s MaxiCourse subcommittee of the Academy’s Education Oversight Committee during his recent visit to the UAE as one of the speakers of Module 5 of the MaxiCourse in Abu Dhabi. The Faculty of the Program, all credentialed by the American Board include Drs. Shahkar Votra (Consultee/Director), Jaime Lozada, Robert Miller, Alfred Duke Heller, Hilt Tatum, William Locante, Naveen Wang, Stuart Otten Jones, Irfan Kanchwala, Mathew Kattadiyil, Frank Lamer, Robert Schoering, Amit Vohra, said Dr. Ninette Banday, who is the co-Director of the Program in the UAE and also an instructor in the Program. These Top Speakers discuss a broad range of interesting topics that all experience levels can benefit from scientific support. The Program moves from the basics to the advanced level and so in Module 1 all participants review the Anatomy, basic suturing skills, flap designs along with placing implants on articulated jaws. This prepares them for and sets the basis for the subsequent clinical sessions where the participants work under direct supervision of the instructors on patients. The Ninth batch scheduled to start from August 30th 2016 will allow the participants to place 10 implants as part of the Program. The participants therefore get an opportunity for discussion of actual problems and to find solutions which they can apply in their clinical practices. Adding the supervised Clinical sessions both surgical and restorative has further elevated the level of the Program. All the expertise developed in turn benefits the patients the dentists serves.

The Program fulfills the educational requirements for the Examination for Associate Fellow Membership Examination for the American Academy of Implant Dentistry. In several parts of the world the Associate Fellowship or Fellowship of the AAID is an acknowledged credential that represents quality training in Implantology and skills in the Art and Science of Implant Dentistry. To obtain these credentials our participants have to take the AAID examinations which involves a written Examination – the Part 1 and an Oral/Clinical Examination which is clinically oriented, the Part 2. The Part 1 the written part can be taken at several Prometric Centers in Abu Dhabi and Al Ain and also in other centers in the Middle East Region. For the Part 2, previously participants had to travel to Chicago, but now since last two years they can take it in Dubai and the next Part 2 Examination is scheduled in May 2016. The Faculty are now working to start an advanced Bone grafting and a Soft tissue Management Course that is planned to start from August 2016 to further the clinical skills of the MaxiCourse alumni.

The AAID Foundation also awards Research Grants to help members continue dental implant specific research work. Recently $62,000.00 was awarded to three researchers that brings the amount awarded by the Foundation to over $700,000.00 over the past five years since the inception of the Endowment Fund.

The AAID is making every effort to make implant education more accessible and beneficial to the participants ensuring comprehensive training Programs in Implant Dentistry. For the MaxiCourse Asia additional information can be obtained online at www.maxicourseasia.com or by emailing Dr. Ninette Banday at drnbanday@yahoo.com.

Participants are required to do rigorous hands on session on models, typodonts and lamb jaws in Module 1 before the clinical sessions in Modules 2, 3, 4 & 5.

Registrations:

Pre-registration is mandatory as it is a limited participation Program. For further information and registration details visit website: www.maxicourseasia.com or e-mail Dr. Ninette Banday, Coordinator AAID-MaxiCourse UAE at drnbanday@yahoo.com

AAID is attending 11th CAD/CAM & Digital Int’l Conference and 8th Dental Facial Cosmetic Int’l Conference.
Treatment of Peri-Implantitis with the Picasso Diode Laser
A long-term follow-up after debridement and grafting

By Gregori M. Kurtzman, DDS, MAGD, Markus Wetz, DDS, Ron Kaminer, DDS, Daniel D. Gober, DDS

The prevalence of peri-implant complications is rising significantly as implant treatment increases. Periodontal disease associated with implants can range from gingival inflammation in the absence of bone loss to significant bone loss and mobility of the fixture. The latter can occur when the disease process is not identified early in the process or a "watch and wait" attitude is taken. Treatment has traditionally involved flap elevation and mechanical debridement with surgical hand instruments to remove any granulation tissue present on the implant threads. As a result of the limitations of surgical tools, removal of additional bone might be required to reach areas that are not visible. Success diminishes as more surface area is left unturned.

Diode lasers have several benefits related to peri-implantitis treatment. The small diameter of the flexible glass fiber allows easier and more complete access without the need to remove as much bone as when only surgical instruments are utilized. Additionally, the diode has the ability to sterilize the implant's contaminated surface, eliminating any existing bacteria and keeping them from preventing healing after treatment. The added benefit of using a diode in these procedures is biostimulation of the mesenchymal stem cells in the surrounding bone and soft tissue, an important tool for regenerative therapy and tissue engineering to provide better healing. Thus, the diode laser is a good adjunct in the treatment of peri-implantitis, improving the clinical results observed with more traditional methods.

Case Presentation
A 64-year-old male patient presented in June 2010 with a fistula draining on the buccal of the upper right canine. The fistula was located distal to the canine midline in close proximity to the gingival margin (figure 1). A gutta-percha cone was inserted into the fistula to trace the orignination point of the draining infection and a radiograph was taken. It was determined that the fistula traced to the apical of the implant situated at site No. 6. Implants had been placed and restored for teeth Nos. 3 through 7 several years previously. The implant was identified as a Bränemark Mark III RP (Nobel Biocare, www.nobelbiocare.com) at site No. 4 through 6, and a NobelReplace (Nobel Biocare) at site No. 7. A radiograph was taken to evaluate the uncovering osseous structure around the implant, which demonstrated radiolucency associated with the apical of implant No. 6 and restoral bone loss with thread exposure under the soft tissue on implant No. 7. Clinically, no evidence of infection and no implant mobility was detected.

The patient was informed of the gingival issues and the available treatment options, including removal of the ailing implant, grafting the site, and placing and restoring a new implant after an appropriate healing period. The other option would be elevating a flap, cleaning out any granulomatous tissue, and treating the site with a diode laser and graft to replace any lost bone.

He was also informed that the latter option meant that the site would need to be evaluated once entered and there was a possibility that the implant would need to be explanted should it exhibit mobility following debridement. The patient chose peri-implantitis repair.

Properative antibiotics (2 g amoxicillin) were given orally 1 hour prior to the intiation of treatment. A local anesthetic (Septodont, www.septodont.com) set at 1.5 W in a periapical radiograph was used to localize the treatment area. A horizontal incision was made from the distal of the first molar to the mesial of the second molar. A vertical releasing incision was made to the mesial and distal extent of the horizontal incision and a full-thickness flap was elevated. Upon flap reflection, it was not noted that a large dehiscence was present on teeth Nos. 6 to the crest to several millimeters beyond the apical of this implant. Additionally, some dehiscence was noted on the buccal of implant No. 5 with threads minimally covered with bone over the apical half of the implant.

Site No. 7 presented with 30% to 50% of the threads denuded of bone with complete soft tissue coverage. A hand instrument was utilized to remove any gross granulation tissue adherent to the bone and exposed implant threads from site No. 7. An activated 900-µm diode tip laser (Picasso diode laser; www.amdlasers.com) was set at 15 W in continuous mode was used to remove any residual granulation tissue on the exposed threads at the defect and sterilize the defect area.18 The diode's fiber tip was placed into physical contact with the implant surface to remove any residual granulation tissue and sterilize the area of any bacteria that contributed to the peri-implantitis, leaving clean threads. Following debridement and sterilization, bone chips were created. Geistlich Bio-Oss® (Geistlich Pharmaceuticals, www.geistlich-usa.com, a bovine biocompatible porous bone mineral substance, was packed into the defect around the implant and allowed to absorb blood from the surrounding tissue to form a coagulated mass. The bone graft was built out buccally to create a new buccal plate covering the entire implant below the crest (figure 4). A piece of resorbable membrane (Oxipore® Plus, OxeraPharma, Inc, www.oxerapharma.com) was trimmed to overlie the osseous graft and end on native bone and was placed over the graft under the flap. The flap was repositioned and secured with nine interrupted sutures using 5-0 gut to achieve primary closure.

A radiograph was taken to document the bone fill of the osseous graft (figure 5). Hemostasis was confirmed and the patient dismissed. A prescription for a Z-Pak (Zithromax®, Pfizer, www.pfizer.com) was given with the instructions to use as directed until finished. Additionally, a prescription was given for DoloHib (Merck & Co, Inc, www.merck.com) 500 mg for pain to be taken twice daily for the initial 3 days post-surgically. The patient returned after 1 week for suture removal and indicated no significant postoperative discomfort. The site appeared to be healing normally and he was ap- pointed for a follow-up to check healing. At the next postoperative visit, the site appeared healed with a lack of inflammation and the patient was placed on periodontal recall alterna- tive with his general dentist office at 5 years post peri-implantitis treatment, cone-beam computed tomography (CBCT) was used to evaluate the long-term status of the repaired area. The gross structure at the right maxillary canine demonstrated that the grafted buccal plate remained at the position completely covering the implant with no sign of further infection noted (figure 6 and 7). A periapical radiograph confirmed osseous integration (figure 8).

Discussion
Managing peri-implantitis can be a challenge. As this case illustrates, bone loss may be progressing for an extended period of time before the clinician becomes aware of it. Treatment requires a surgical approach to remove the infected tissue that has replaced bone overlying the implant to achieve any success. The benefits of the Picasso diode laser is the fiber can be extended into hard-to-reach areas around the implant to achieve better sterilization and debridement without the need to remove additional bone for access, which would be necessary if only de- bridement with surgical hand instru- ments was utilized.

Traditional methods have reported mixed results in removing all of the granulation tissue from the exposed implant threads without altering or gouging the implant's surface or coating. A pulsed Er:YAG laser has also been reported to cause implant surface alteration.

Scanning electron microscope analysis has demonstrated no dam-
age or alteration of titanium surfaces from a diode laser, regardless of the power setting. No visible difference between lasered and non-lasered titanium surfaces after irradiation has been reported, ensuring that the result yields the best surface guided tissue regeneration compared to either mechanical debridement or a Er:YAG laser.

Success in peri-implantitis treatment is strongly linked to the ability to eliminate the bacteria in the site that could hamper regeneration. This becomes more critical with implants that have been surface treated. Treated implant surfaces exhibit macro roughness that are advantageous for initial integration, but also will harbor bacteria when peri-implantitis has occurred. Removal of bacteria in these micro irregularities is difficult by mechanical means. The diode laser has the ability to decontaminate the exposed surface and threads without any negative effects.

**Conclusion**
The key to successful peri-implantitis treatment is early identification to limit bone loss from inflammation and infection. The diode laser is a powerful adjunct to treating periodontal disease, allowing better access to eliminate more granulation tissue than when only mechanical means are utilized. This case demonstrates that the protocol can provide long-term predictable results showing 5-year maintenance of the grafted area and an absence of inflammation over that time.

**Acknowledgement**
Treatment for the case presented was performed by Dr. Markus Weitz.

**References**
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Figure 24. Surgical dissection and Ti mesh removal

Figure 25. Customize screw retained temp. crown

Figure 26. Temp. crown placed and 2 stabilization sutures

Figure 27. Adjustment the contact of the temp. crown and orthodontically reducing the mesio-distal dimension

Figure 28. Gingival healing around the temp. crown after adjustment of the mesio-distal dimension

Figure 29. Temp. crown occlusal view of the healed site

Figure 30. Implant site after soft tissue conditioning

Figure 31. Buccal view of the healed site after soft tissue conditioning

Figure 32. Duplicating the gingival tissue site

Figure 33. Gingival sulcus duplicated

Figure 34. Impression post

Figure 35. Impression post with sulcus shape

Figure 36. Impression post

Figure 37. Pre-op full arch view

Figure 38. Pre-op full arch view

Figure 39. Post-op full arch view

Figure 40. Buccal view with the final screw retain crown

Figure 41. Occlusial view of screw final crown

Figure 42. Final frontal view after orthodontic and restorative correction

Figure 43. Final occlusal view post-op

Figure 44. Final occlusal view post-op before insertion of the final crown showing correction of the buccal defect

Figure 45. Frontal pre-op photo

Figure 46. Frontal post-op photo

Figure 47. Final view with the smile line after cementation of 4 units veneers

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