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TwinLight Peri-implantitis treatment with 8 years follow-up

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Parameters:

Laser source:	Er:YAG, 2940 nm	Nd:YAG, 1064 nm
Pulse duration:	MSP	MSP
Energy/power:	120 mJ	2 W
Frequency:	10 Hz	20 Hz
Handpiece:		R21-C3
Spray:	yes	

Treatment procedure:

A 60-year-old female with an implant placed 7 years prior came to our clinic. She had been treated for chronic periodontitis before. The radiographic examination revealed a combined marginal and vertical radiolucency. The implant crown was removed and probing depth was examined. No clinically detectable mobility of the fixture was present.

A crestal incision was scalloped around the implant neck to remove the internal epithelium and granulation tissue from the pocket. A mucoperiosteal flap was raised to expose the implants. Bone and granulation tissue were eliminated from the bone defect with the Fotona Er:YAG laser, and the implant surface was detoxified with the same laser. The surgical area was then carefully disinfected with the Fotona Nd:YAG laser (avoiding contact with the implant surface).

After bone grafts were compacted into the defect and a barrier was placed over the defect, the flaps were released and primary closure was achieved with sutures. The patient was instructed to continue with antibiotics, and a strict maintenance and oral hygiene protocol was established.

The area healed after six months, after which healing abutments were placed. Bone formation within the bony defect was evident. At the six-month follow-up, a radiograph showed increased mineralization of the bone surrounding the implant. The patient was examined every year, and eight years after the treatment, a radiograph demonstrated complete resolution of the bony defect surrounding the implant.

This case demonstrates the long-term success of the TwinLight treatment protocol in the surgical treatment of peri-implantitis. The required decontamination of the implant surface and maintenance of a healthy peri-implant environment was successfully achieved.

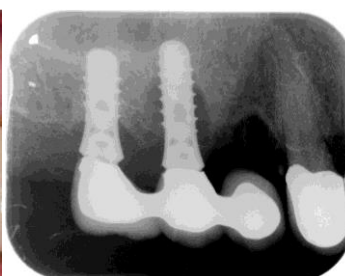


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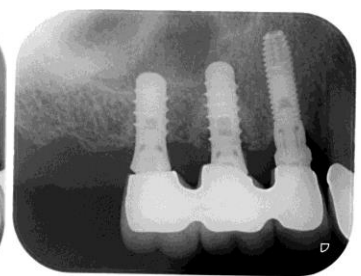
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First examination



X-Ray before



X-Ray after 8 years