

Peri-implantitis surgical treatment with implantoplasty: case series

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Abstract

Background: Peri-implantitis (PI) treatment with implantoplasty (IP) has some clinical positive results. The **aim** of this retrospective case series is to present a 24 months clinical results of peri-implantitis surgical treatment with implantoplasty.
Material & Methods: 8 patients (17 implants) were diagnosed with PI (PD= 5.16 ± 0.47mm/ MR=0.50 ± 0.66mm/BOP=0.15 ± 0.02/SUP=0.01 ± 0.01/CAL=5.66 ± 0.52). After full thickness flap IP was performed and apically repositioned flap (ARF) performed.

Results: At 12 and 24 months evaluation no clinical signs of PI were present (p<0.05).

Conclusion: At a 24 months evaluation IP allowed PI resolution.

	baseline		12 months		24 months		Treat. effect	p
	$\bar{x} \pm s$	min/max	$\bar{x} \pm s$	min/max	$\bar{x} \pm s$	min/max		
PD	5.16 ± 0.47	4.17/5.61	2.81 ± 0.36	2.50/3.50	2.83 ± 0.50	2.08/3.67	-2.33 [-2.95; -1.71]	0,012
MR	0.50 ± 0.66	0.00/1.92	1.45 ± 0.89	0.17/2.50	1.38 ± 0.99	0.17/2.50	0.88 [0.39; 1.37]	0,012
BOP	0.15 ± 0.02	0.11/0.17	0.01 ± 0.02	0.00/0.04	0.02 ± 0.01	0.00/0.03	-0.13 [-0.15; -0.11]	0,012
SUP	0.01 ± 0.01	0.00/0.03	0.00 ± 0.00	0.00/0.00	0.00 ± 0.00	0.00/0.00	-0.01 [-0.02; 0.00]	0,666
CAL	5.66 ± 0.52	4.83/6.50	4.16 ± 0.76	3.17/5.21	4.21 ± 0.80	3.00/5.42	-1.45 [-1.85; -1.06]	0,012

Table 1 – Clinical parameters at 0, 12 and 24 months. PD: probing depth; MR: Mucosal recession; BOP: bleeding on probing; SUP: suppuration; CAL: clinical attachment level; Treat. Effect: treatment effect (0-24months). P: p value (baseline-24 months)

Results

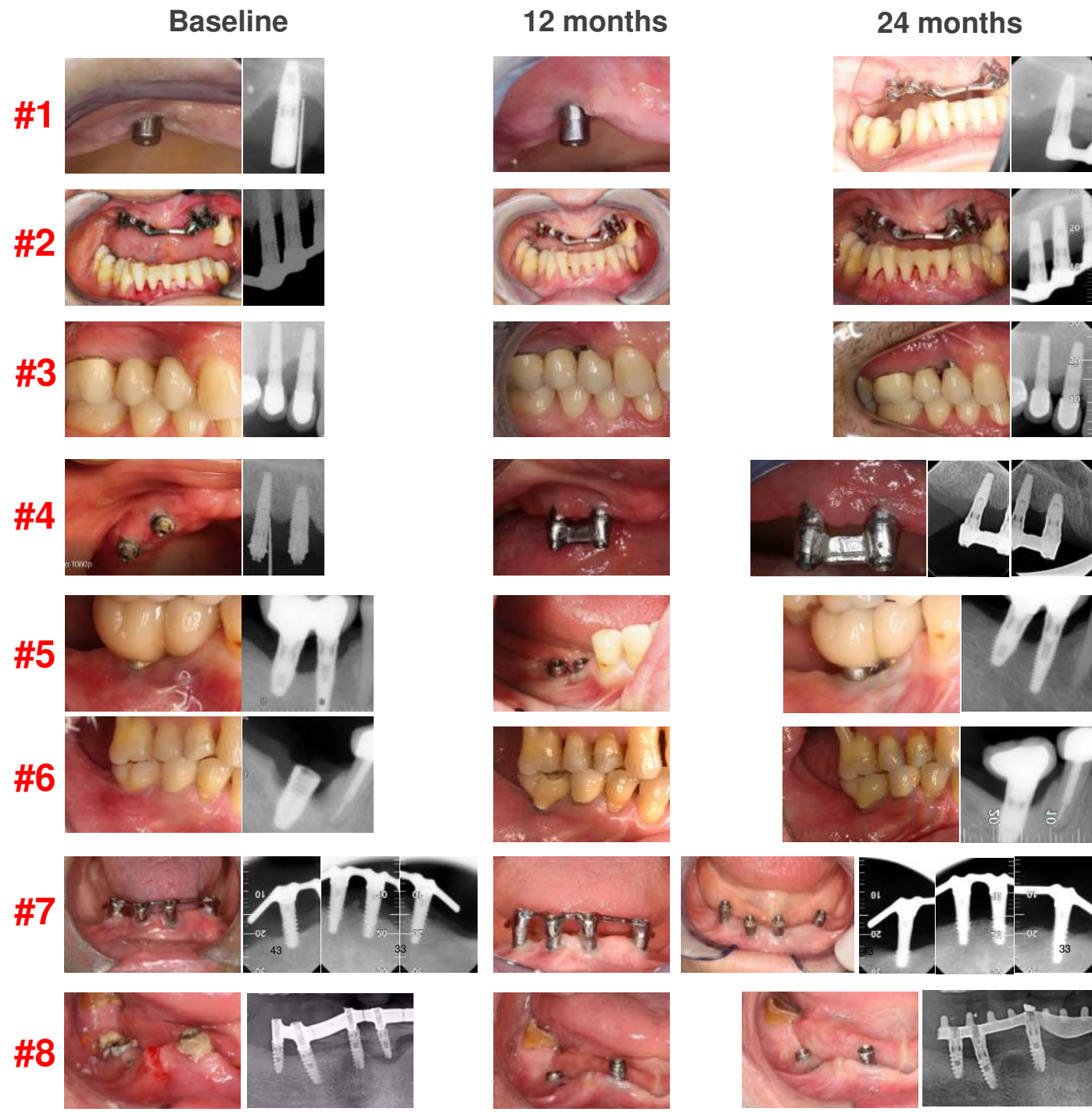


Fig. 1 – clinical and radiographic images regarding clinical cases at baseline, 12 and 24 months after implantoplasty.

Background and Aim

Several surgical treatments have been proposed to treat PI but the available evidence does not allow specific recommendation (1,2). Resective treatment with IP allows the decontamination of the implant surface. Clinical studies confirm IP success up to 9 years follow-up (3-5).

Aim: To present a 24 months clinical results of PI surgical treatment with implantoplasty.

Conclusion

The clinical signs associated to PI were eliminated by implantoplasty allowing the pathology resolution over a 24 months period. However IP is associated with increased mucosal recession. It's fundamental a strict maintenance program.

Methods and Materials

- 8 patients (17 implants)(mean age: 63±11.92 y)
- PI definition: PD≥6mm and/or RBL ≥3mm and BOP.
- Data collection: 6 sites/implant (PD/MR/BOP/SUP/CAL).
- Surgery: full thickness flap and granulation tissue removal. Implantoplasty: round diamond burs (200.000rpm))(blue (40µm) and yellow (15 µm) (Coltène/Whaledent AG-Diatech, Switzerland) and final Arkansas stone. Bone recontour (hand-piece). Apically repositioned flap. Suture (5/0, Seralon®, Serag-Wiessner, Germany). Suture removed at 2 weeks.

References

- Maintenance program: 3-3 months (1st year) and 6-6 months (2nd year).
- At 12 and 24 months: clinical data collection.
- IBM® SPSS® v24. Shapiro Wilks normality test / Wilcoxon test / level of significance 95%.

