Important Numbers in Implant Dentistry

97%

97% success in 374 External Exfeel and EzPlus implants placed in 133 patients. A retrospective study with an evaluation period of 6 to 60 months.

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Object

In1981 Albrektsson et al. emphasized the biocompatibility, morphology, surface treatment, condition of recipient site, surgical technique, and control of loading condition as key factors of successful osseointegration in dental implants. They also reported other factors needed for successful implant therapy such as patient selection, experience of the surgeon, initial stability of the implant, placement timing, esthetics, and responsiveness to the grafting material. Clinically, obtaining sufficient initial stability is crucial. This depends on the bone density of the surgical site, the surgical method, and the microscopic surface characteristics and macroscopic morphology of the implants. We Analyze characteristics and results obtained with Megagen® implants placed from September 2008 to March 2013.

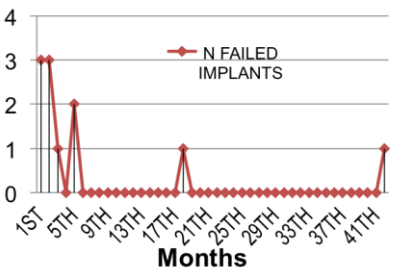
Materials and Methods

The retrospective study group consisted of 133 patients (54 males and 79 fema les, with a mean age of 59 ± 14years), treated with a 374 implants (345 Exfeel and 29 EzPlus) (Megagen Co., Korea), between the period from September 20 08 to March 2013 (Table 1). The patients were examined clinically and radiogra phic with intra-oral radiographs, panoramic and computed tomograph if needed prior to surgery.

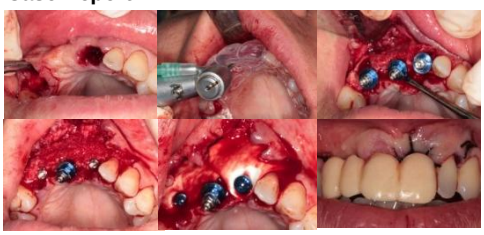
A total of 374 implants were placed; and we waited 90days (12 weeks) to start to load all the implants.

TABLE 1		NUMBER IMPLANTS	NUMBER FAILURE	SURVIVAL RATE
SEX	MALE (54)	158	7	95.6%
	FEMALE (79)	216	4	98.1%
TYPE CONNECTION	EXTERNAL CONNECTION (EXFEEL)	345	10	97.1%
	INTERNAL CONNECTION (EZPLUS)	29	1	96.5%

GRAPHIC 1. Failed Implants / Time



Case Report



References

1. Albrektsson T, Brånemark PI, Hansson HA, Lindström J. Osseointegrated titanium implants. Requirements for ensuring a long-lasting, direct bone-to-implant anchorage in man. Acta Orthop Scand1981;52:155-70.

2. Jang HW, Kang JK, Lee K, Lee YS, Park PK. A retrospective study on related factors affecting the survival rate of dental implants. J Adv Prosthodont 2011;3:204-15.

3. Kim JS, Sohn JY, Park JC, Jung UW, Kim CS, Lee JH, Shim JS, Lee K, Choi SH. Cumulative survival rate of Astra Tech implants: a retrospective analysis. J Periodontal Implant Sci 2011;41:86-91.

Results

345 External Exfeel and 29 EzPlus implants were evaluated for a mean of 26.9 months. 11 implants failed(10 Exfeel and 1 EzPlus) (Table 2). 9 before loading (12 weeks) and 2 loaded (18 and 42 months), giving a success rate of 97% (Graphic 1).

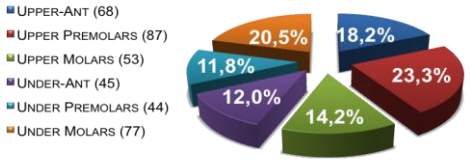
TABLE 2. N Implants (Type connnection) – [N Failed Implant]

	3.3Ø	3.75Ø	4Ø	5Ø
LEGHT				
7MM			2 (EXFEEL)	1 (EXFEEL)
8.5MM	1 (EXFEEL)		13 (EXFEEL)	27 (EXFEEL)
			1 (EZPLUS)	2 (EZPLUS) – [1]
10MM	10 (EXFEEL)	34 (EXFEEL) – [1]	50 (EXFEEL) – [1]	47 (EXFEEL) – [1]
	1 (EZPLUS)		6 (EZPLUS)	1 (EZPLUS)
11.5MM	13 (EXFEEL) – [2]	34 (EXFEEL) – [2]	84 (EXFEEL) – [2]	1 (EXFEEL)
			4 (EZPLUS)	3 (EZPLUS)
13MM	4 (EXFEEL)	15 (EXFEEL) – [2]	9 (EXFEEL)	
	5 (EZPLUS)		6 (EZPLUS)	
TOTAL	374			

Implants were placed in the distribution showed at Table 3 and Graphic 2.

TABLE 3		NUMBER IMPLANTS	NUMBER FAILURE	SURVIVAL RATE
REGIONS	UPPER-ANT	68	4	94.1%
	UPPER PREMOLARS	87	1	98.8%
	UPPER MOLARS	53	1	98.1%
	UNDER-ANT	45	2	95.5%
	UNDER PREMOLARS	44	1	97.7%
	UNDER MOLARS	77	2	97.4%

GRAPHIC 2. Implants Position



Conclusions

1. Treatment with MegaGen ® Exfeel External and EzPlus dental implants has a success rate of 97% in a mean assessment period of 26.9 months.

If all the factors mentioned by Albrektsson are complied, the osseointegration will be successful, as demonstrated by our results.

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