P-SU-093

IMPLANT THERAPY OUTCOMES; SURGICAL ASPECTS

Evaluation of the efficiency of alveolar sealers after multiple sockets extraction: should we use them or not?

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Abstract

CBCT of 20 cases treated with multiple extractions were evaluated in order to obtain the index of bone resorption in post extraction sockets using anodized titanium foil as an alveolar sealer. CBCT scans were taken before and 90 days after extraction. The inclusion criteria were treatments using clot an anodized titanium foil. The test group consisted of the multiple extraction cases and the control group the cases of simple. The measurements were recorded in the baseline and 90 days after, evaluating the distance between buccal and palatal bone plates, 1 mm above the palatal crestal bone. The data was statistically analyzed by t-Test ($p<0.05$ was considered). A ANOVA test was performed to compare the groups (factor 0,25 was considered).

Table 2. Values of CBCT outcomes with respect to width in milimeters at baseline and 3 months single post extraction and standard deviation

Patient	Gender	Age	Tooth	Baseline	3 months	Change	% Change
1	F	36	46+	10,2	9,1	1.1	9,0
2	M	42	36+	11,0	9,5	1,5	13,0
3	F	50	25+	9,0	8,2	0,8	8,0
4	F	38	36+	10,8	9,5	1,3	12,0
5	F	48	16+	11.5	10,5	1,0	8,0
6	M	60	16*	10,5	9,3	1,2	11,0
7	M	54	26*	12,0	10,0	2,0	16,0
8	F	39	21+	9,3	7,0	2,3	24,0
9	M	31	25+	8,7	8,0	0,7	8,0
10	F	47	14+	7,8	7,0	0,8	10,0
11	M	39	44*	8,5	7,0	1,5	17,0
12	F	33	37*	11,0	9,8	1,2	11,0
13	F	41	46+	10,6	9,3	1,3	12,0
14	F	53	46+	10,0	8,8	1,2	12,0
15	M	30	21+	9,0	7,7	1,3	14,0
16	F	34	12+	7,0	5,6	1,4	20,0
17	M	42	26+	12,1	11,5	0,6	5,0
18	M	44	36*	10,6	9,3	1,3	13,0
19	F	58	36*	11,0	10,5	0,5	5,0
20	M	39	47+	11,4	11,0	0,4	4,0
Mean (SD)				9,85 ± 2,85	8,51 ± 2,91	1,28 ± 0,71	12,81

*Extraction due to periodontal reason
+Tooth/root fracture

Results

Table 3. Values of CBCT outcomes with respect to width in milimeters at baseline and 3 months post multiple extraction with no graft filling standard deviation

Patient	Gender	Age	Tooth	Baseline av.	3 months	Change	% Change
1	M	46	45,46	8,0	6,3	1,7	21,0
2	M	34	36/37	11,0	8,2	2,8	25,0
3	F	56	25/26/27	10,0	8,5	1,8	15,0
4	F	53	36/37	12,0	9,2	2,8	23,0
5	F	39	16/17/18	11.5	10	1,5	12,0
6	F	60	15/16	9,0	7,5	1,2	16,0
7	M	42	26/27	12,0	10,5	1,5	13,0
8	F	43	21/22/23	8,0	6,5	1,5	25,0
9	F	53	35,36,37	8,5	6,0	2,5	30,0
10	M	60	35,36	9,1	7,8	1,3	15,0
11	F	58	14,15	8,5	7,0	1,5	18,0
12	M	47	13,14,16	8,7	6,8	1,9	21,0
13	M	43	46,47	10,1	8,4	1,7	17,0
14	M	42	45,46,47	8,9	7,0	1,9	21,0
15	F	39	36,37,38	12,0	9,0	3,0	25,0
16	M	55	16,17,18	12,5	10,2	2,3	18,0
17	F	59	12,11,21	8,0	5,4	2,6	32,0
18	F	49	23,24,25,26	8,0	6,6	1,4	18,5
19	F	54	36,37,38	11,5	8,2	3,3	28,0
20	M	41	24,25,26,27	8,5	7,0	1,5	18,0
Mean (SD)				10,18 ± 2,18	8,27 ± 2,27	1,91 ± 0,71	18,75

Results

The results were presented in percentages with the purpose of reducing the influence of the alveolus sizes. After 90 days, we observed a mean of -18.75% + 6.25 ($p = 0.02$) of volumetric loss in relation to the baseline in the multiple extraction areas. Comparing with the areas of unit extraction -12.81% + 2.91 ($p = 0.01$), we observed a significant statistically difference between the groups evaluated (Pvalor = 1.44).

Background and Aim

Background

Among alveolar preservation techniques after extraction, the use of alveolar sealers is quite common in clinical practice. However, the observation of its efficiency in multiple cases when compared to the unit cases deserves further investigation, in order to be in front an indication or not, the use of the socket healers.

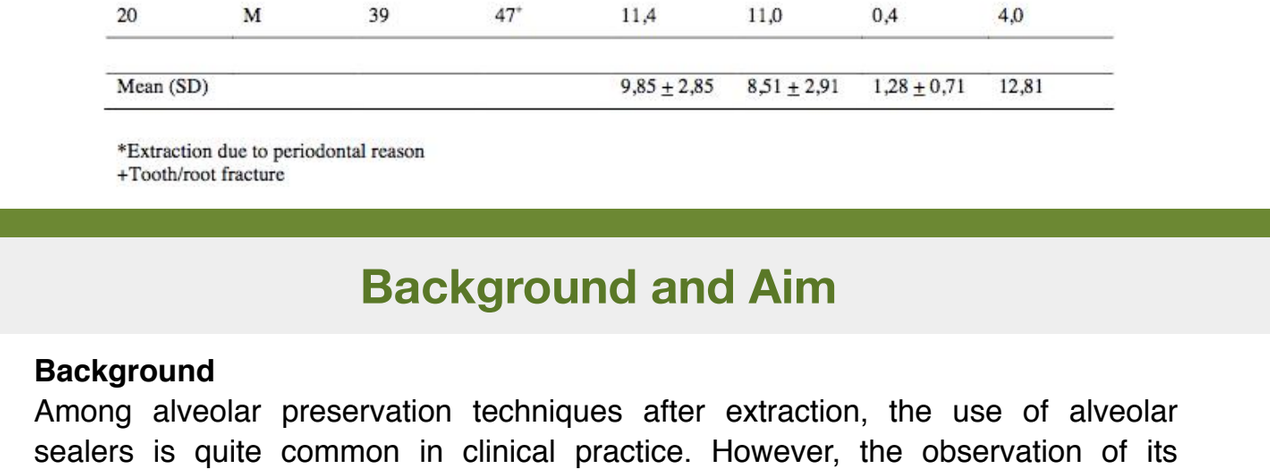
Aim

The aim of this study was to evaluate the efficiency of the alveolar sealers after multiple sockets extraction, with the purpose of volumetric maintenance.

Conclusion

By observing the tomographic means obtained, we conclude that the use of alveolar sealers does not prevent total volumetric bone loss. Areas of multiple extractions have a statistically significant higher loss in relation to the unit areas, however they are still smaller when compared to the literature data. Future randomized controlled clinical studies are suggested to investigate the regenerative potential of this alveolar preservation technique.

Methods and Materials



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