EFFECT OF A DENTIFRICE CONTAINING 0.12% CHLORHEXIDINE DIGLUCONATE ON THE ORAL HEALTH DURING THE POSTOPERATIVE PERIOD IN INDIVIDUALS SUBMITTED TO SECONDARY ALVEOLAR GRAFT WITH RHBMP-2

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Introduction

Individuals with cleft lip and palate often present difficulty to perform adequate oral hygiene, presenting greater dental plaque accumulation with consequent microbial imbalance in the oral cavity; therefore, they were clinically considered high risk individuals for dental caries and periodontal disease.

Plaque control is particularly important in the postoperative period after secondary alveolar graft, aiming to avoid postoperative infection, maintain the periodontal health and consequently promote better repair.

Objective

This study evaluated the effectiveness of a dentifrice containing 0.12% chlorhexidine digluconate on the oral health of individuals with cleft lip and palate during the postoperative period after secondary alveolar graft.

Methods

A double blind study was conducted on 20 individuals randomly divided in two groups (A and B). Individuals in group A (control) received conventional dentifrices, and individuals in group B received a dentifrice containing 0.12% chlorhexidine digluconate.

Individuals in both groups received small head toothbrushes with extra-soft bristles, as well as oral hygiene instructions for toothbrushing three times a day (at morning, after lunch and before sleep). The individuals were analyzed in two periods, namely preoperative and late postoperative (after three months), comprising evaluation of gingival index, plaque index, DMFT, dmft, tooth staining, as well as the occurrence of taste changes.

Table 1 - Values of total gingival index and according to dental face and buccal region for group A

Moment 1		Mean ± SD	Range	Median
Total GI		1,30 ± 0,21	0,81 - 1,51	1,38
Face	Vestibular	1,13 ± 0,32	0,27 - 1,42	1,20
	Lingual or Palatine	1,40 ± 0,21	1,00 - 1,62	1,46
	Mesial	1,29 ± 0,20	0,89 - 1,54	1,35
	Distal	1,35 ± 0,23	0,84 - 1,54	1,42
Region	Anterior	1,23 ± 0,26	0,56 - 1,50	1,30
	Posterior	1,39 ± 0,19	1,06 - 1,63	1,43
Moment 2		**Mean ± SD**	**Range**	**Median**
Total IG		1,35 ± 0,28	0,84 - 1,86	1,36
Face	Vestibular	1,14 ± 0,30	0,68 - 1,60	1,18
	Lingual or Palatine	1,43 ± 0,29	0,96 - 2,05	1,39
	Mesial	1,31 ± 0,31	0,82 - 2,05	1,30
	Distal	1,37 ± 0,25	0,89 - 1,70	1,44
Region	Anterior	1,25 ± 0,30	0,65 - 1,77	1,28
	Posterior	1,40 ± 0,24	1,03 - 1,92	1,41

SD= standard deviation; **GI=** gingival index.

Table 2 - Values of the total gingival index and according to the dental face and buccal region for group B

Moment 1		Mean ± SD	Range	Median
Total GI		1,33 ± 0,13	1,13 - 1,52	1,33
Face	Vestibular	1,18 ± 0,14	1,00 - 1,38	1,23
	Lingual or Palatine	1,38 ± 0,20	1,00 - 1,70	1,39
	Mesial	1,35 ± 0,12	1,15 - 1,52	1,37
	Distal	1,37 ± 0,15	1,02 - 1,57	1,38
Region	Anterior	1,28 ± 0,16	1,04 - 1,52	1,32
	Posterior	1,35 ± 0,18	0,97 - 1,57	1,41
Moment 2		**Mean ± SD**	**Range**	**Median**
Total GI		1,36 ± 0,26	0,92 - 1,73	1,45
Face	Vestibular	1,25 ± 0,32	0,62 - 1,71	1,28
	Lingual or Palatine	1,38 ± 0,26	0,92 - 1,71	1,33
	Mesial	1,35 ± 0,28	0,90 - 1,71	1,36
	Distal	1,42 ± 0,25	1,04 - 1,76	1,44
Region	Anterior	1,34 ± 0,26	0,88 - 1,65	1,41
	Posterior	1,41 ± 0,24	1,00 - 1,82	1,43

SD= standard deviation; **GI=** gingival index.

Table 3 - Plaque index values for groups A and B

	Evaluation moment	Mean ± SD	Range	Median
Group A	M1	1,37 ± 0,21	1,07 - 1,77	1,35
	M2	1,23 ± 0,26	0,63 - 1,56	1,29
Group B	M1	1,39 ± 0,16	1,18 - 1,74	1,39
	M2	1,25 ± 0,21	0,87 - 1,53	1,30

SD= standard deviation; **M1=** moment 1; **M2=** moment 2.

Results

Statistical analysis for the variables gingival index, plaque index, DMFT and dmft for both groups revealed no statistically significant difference between groups, and between the study periods for both groups (p>0,05).

Only one individual, in group A, reported taste changes during the study period. No tooth staining indicating association with the utilization of chlorhexidine was observed in the clinical examinations.

Conclusion

This study highlighted the importance and positive influence of individualized care for toothbrushing instructions, especially considering that this surgical procedure is usually performed in children or pre-teens, under responsibility of proper accomplishment of postoperative care measured by their caregivers.