

Spermidine Associated to Non-Surgical Treatment of Periodontal

Disease: Split Mouth Randomized Controlled Clinical Trial

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Purpose: to evaluate the adjunctive beneficial effects of a spermidine gel to periodontal non-surgical therapy on reduction of periodonal pockets



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20 patients (staging III-IV; grading B) were enrolled for non-surgical periodontal therapy (step 1,2)

Methods

In three quadrants for each patients, three experimental teeth with probing pocket depth (PPD) \geq 6 mm were selected and randomly assigned to one of the following treatments:

Group a: Scaling and root planing (SRP)+ spermidine gel (spermidine + alginate)Group b: SRP + placebo gel (only alginate) (positive control group)Group c: SRP (negative control)

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Local delivery of spermidine gel into a periodontal pocket





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Results

	Baseline	T1	T2	T1 vs baseline (p)	T2 vs baseline	T2 vs T1
Group a	6.5 (±0.7)	4.4 (±0.69)	3.8 (±0.7)	<.0005	<.0001	<.001
Group b	6.4 (±1.3)	4.5 (±0.9)	3.9 (±0.9)	<.0001	<.0001	n.s.
Group c	6.4 (±1.1)	4.1 (±1.3)	4 (±0.9)	< .0001	<.0001	n.s.
p between groups (Friedman test)	n.s.	n.s.	n.s.			

No PPD differences between groups at each time point

Significant PPD reduction at T1 and T2 compared to baseline (p<0.005 and p<0.001)

Significant PPD reduction from T1 to T2 only in group a (p<0.01)



Before treatment with placebo (Group b)



6-month follow up (Group b)



Before treatment with spermidine gel (Group a)



6-month follow up (Group a)

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Conclusions

After a mechanical non-surgical therapy, local delivery of spermidine induces a **prolonged improvement** of clinical outcomes



Is Ubigel a valid adjunctive therapy in periodontal disease?

Yes it is !!!



Ubigel is a valid supportive therapy after mechanical non-surgical debridement

It creates a protective layer on the surface of the treatment area, promoting tissue regeneration