

ANTI-EROSION POTENTIAL OF FLUORIDE SOLUTIONS ASSOCIATED WITH AMINOMETHACRYLATE COPOLYMER: IN SITU RANDOMIZED CROSSOVER STUDY

Prado TP^{1*}, Santos KC¹, Torres CRG¹, Scaramucci T², Aoki IV³, Borges AB¹

¹ Department of Restorative Dentistry, Institute of Science and Technology, São Paulo State University (Unesp), São José dos Campos, Brazil

² Department of Restorative Dentistry, Dentistry School, University of São Paulo (FOUSP), São Paulo, Brazil

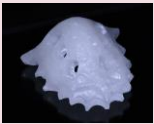
³ Department of Chemical Engineering, Polytechnic School, University of São Paulo (USP), São Paulo, Brazil

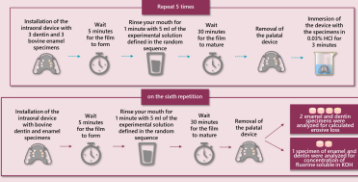




PURPOSE

Measure the anti-erosion potential of fluoride solutions associated with aminomethacrylate (AMC) in the presence of acquired pellicle on enamel and dentin, using a randomized cross-over in situ study.

MATERIAL AND METHODS

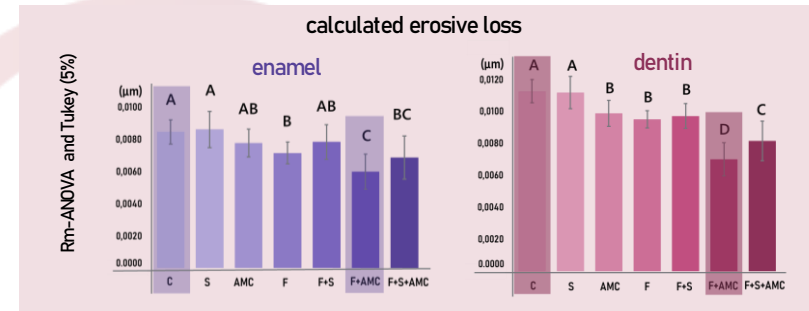
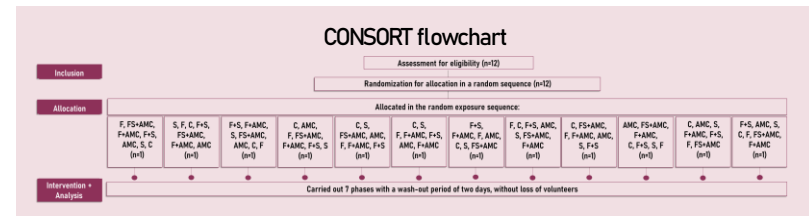
- sample size
- ethics approval
- participant recruitment
- random sequence and blinding
- specimen preparation
 - selection
 - root removal
 - cut
 - regularization
 - embed
 - polishing
 - sterilization by γ radiation
- preparation of the intraoral device
 
- preparation of experimental solutions

GROUP 1	Control (H ₂ O)
GROUP 2	S (800 ppm Sn ²⁺)
GROUP 3	F (225 ppm F)
GROUP 4	AMC (2%)
GROUP 5	F + S
GROUP 6	F + AMC
GROUP 7	F + S + AMC
- erosion cycle
 
- tests
 - calculated erosive loss
 
 - fluoride soluble in KOH
 

CONCLUSION

The AMC was able to increase the anti-erosion potential of fluoride solutions in the presence of acquired pellicle.

RESULTS



fluoride soluble in KOH

Rm-ANOVA and Tukey (5%)

	enamel			dentin		
Group	Mean (%)	Significance	Significance	Mean (%)	Significance	Significance
C	0.0533	± 0.03	A	0.0828	± 0.0428	A
S	0.0931	± 0.07	A	0.1387	± 0.0888	A
F	0.7844	± 0.24	A	0.0390	± 0.0198	A
AMC	0.0543	± 0.03	B	1.0726	± 0.4920	B
F+S	1.7415	± 0.41	D	1.6565	± 0.5458	C
F+AMC	1.2747	± 0.21	C	0.8165	± 0.3355	B
F+S+AMC	1.4915	± 0.36	CD	0.8644	± 0.3116	B