

COMPARISON OF ARTIFICIAL SALIVA GEL AND SPRAY ON MUCOSAL WETNESS; IN VITRO STUDY

BACKGROUND

Dry mouth is one of the most common symptoms of the elderly that affects their quality of life. Artificial saliva has been found to be beneficial in reducing the subjective symptoms associated with dry mouth, which proceeds by moisturizing and lubricating oral mucosa. However, artificial saliva in Thailand is not widespread, and the price is relatively high. College of Dental Medicine and College of Pharmacy, Rangsit University work together to manufacture the preparation that will help increase salivary content.

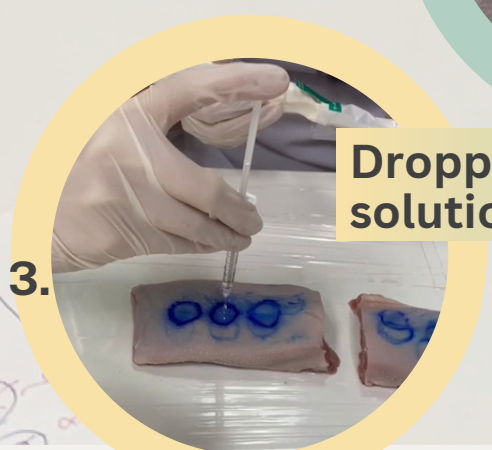
Keywords: Artificial saliva gel, Artificial saliva spray, Mucosal wetness, Oral moisture-checking device, Xerostomia

OBJECTIVES

- To compare mucosal wetness among drinking water, RSU artificial saliva spray, RSU artificial saliva gel, Biotene® mouthwash and GC Dry Mouth Gel®.
- To compare mucosal wetness in each form of artificial saliva in the different time interval (0, 10, 20, 30, 60 and 120 minutes).

METHODS

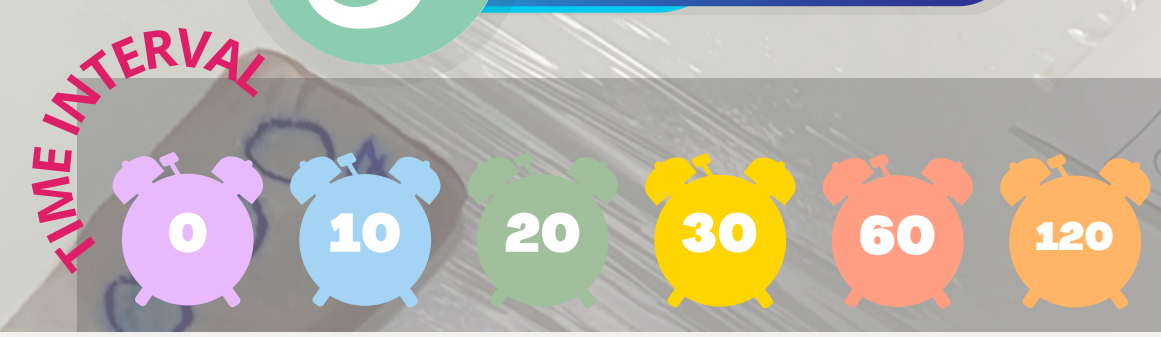
Measure oral wetness :
Oral moisture checking device



70
experimental sites
on swine's tongue

- 1 Drinking water
- 2 RSU artificial saliva spray
- 3 RSU artificial saliva gel
- 4 Biotene® mouthwash
- 5 GC Dry Mouth Gel®

ANOVA
between groups
IBM SPSS Statistic 25
Repeated measure ANOVA
within groups



RESULTS

- Drinking water gave more wetness 3-5 times when compared to not using anything.
- All artificial saliva gave higher wetness than drinking water at 10 to 120 minutes ($p < 0.05$).
- RSU artificial saliva spray was different from Biotene® mouthwash significantly at 20 minutes ($p = 0.035$), whereas the other time interval was not significantly different.
- There was no significant difference among other formulas in every time interval.
- Biotene® mouthwash and RSU artificial saliva spray started decreasing significantly at 10 and 30 minutes, respectively ($p = 0.016$, $p = 0.004$, respectively).
- There was no significant difference in wetness of RSU artificial saliva gel and GC Dry Mouth Gel® during 0 to 120 minutes.



CONCLUSION

Becoming aging society, most of the population who experienced dry mouth have to encounter the discomfort symptoms which lead to disturbance the livings. Therefore, the development of such formulas that mimic the complex properties of saliva was considered to be effective in recovering the oral health with the provision of instant relief from the dry mouth symptoms and upgraded the quality of life of the patients.



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