RESEARCH SUMMARY

Patient preferences of an intra-oral lubricating device over other dry mouth lubrication methods

Patient preferences in a preliminary study comparing an intra-oral lubricating device with the usual dry mouth lubricating methods

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Objective
To compare an intra-oral device to relieve oral dryness with the other methods of lubricating the mouth at night.

Design
Multidisciplinary single blind randomised cross over study.

Setting
The subjects were drawn from patients attending a dry mouth clinic.

Materials and methods
Thirty-four dentate subjects attended on five occasions at intervals of 4 weeks. At the first visit the teeth were scaled and impressions were recorded. The device was fitted either on the second or the fourth visit. At all visits samples were taken of the resting and stimulated saliva for volumetric analysis and the dry mouth score recorded. Data were collected from the lubrication timings and the questionnaire.

Results
Ten water, nine saliva substitute and ten sugar-free chewing gum lubricators completed the study. There were 27 female and two male subjects with an average age of 62 years. Nine out of 10 of those lubricating with chewing gum preferred wearing the device ($p = 0.037$). After the device wearing period the subjects' self assessment of mouth dryness ($p = 0.056$), speech ($p = 0.009$) and swallowing ($p = 0.031$) were more favourable when compared with the alternative lubrication with 66% preferring the intra-oral device to their alternative method of lubrication.

Conclusions
The majority of the subjects preferred wearing the device at night compared with their normal method of lubrication. Subjects' perception of dryness, speech and swallowing became closer to the clinician's assessment after wearing the device.

IN BRIEF

- An alternative method of dry mouth lubrication.
- A novel intra-oral lubricating device.
- Water, saliva substitute and sugar free chewing gum compared with the device.
- The majority of the subjects preferred the device especially at night time.

COMMENT

There has been an increase in recent years, in the number of patients presenting with the distressing condition of xerostomia, which can severely affect quality of life. The problem is most pronounced at night, when already low salivary flow rates fall even further. This often leads to the sufferers having disturbed sleep because of their need to sip water to alleviate their symptoms.

This timely publication reports important data from patients attending the Sjogren Syndrome Clinic at GKT, comparing a new intra-oral lubricating device with the usual method of dry mouth lubrication. Twenty nine patients (27 female and 2 male, reflecting the gender distribution of dry mouth) with an age range of 30–83 years and who were dentate or partially dentate completed the study. The cause of the patient's dry mouth symptoms varied, but the majority were diagnosed with primary or secondary Sjogrens Syndrome.

The subjects were allowed to use their preferred method of lubrication (water (10), saliva substitute (9) or chewing gum (10)) for four of the five study periods and an intra-oral lubricating device for one study period at either the second or the fourth visit.

An oral lubricating device was designed for each of the subjects. This was similar to a mouth guard with a 5–6 ml reservoir, which was filled with oral balance gel and released into the mouth through slits 1 cm long.

The subjects attended the clinic on five occasions at four weekly intervals and were scored for dryness in addition to completing a questionnaire and dry mouth diary. The results showed that the majority of the dry mouth sufferers preferred wearing the intra-oral device compared with their normal method of lubrication, especially at night.

This is an interesting and important study, which has successfully designed an intra-oral device to improve the lubrication of the mouth and increase the feeling of well-being, in terms of improvement in speech and swallowing in this group of patients. Since the devices can last two years or more, this will provide an inexpensive and alternative method of lubrication for sufferers of dry mouth.

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