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ORIGINAL RESEARCH

**THE IMPACT OF VARYING CHLORHEXIDINE CONCENTRATIONS ON THE HEALING OF
RECURRENT APHTHOUS ULCERS: A CLINICAL EVALUATION**

Abstract

Background: REAUs among most common oral mucosal diseases Results : Muscles of mastication and mouth opening Muscles of mastication and opening the mouth (mediation, impairment and OZR) have a great influence on swelling and pain induced by RAUs in OLR. Chlorhexidine gluconate is an antiseptic agent widely used in dentistry, it is considered effective on treatment of RAU, however, the best and the lowest side effect concentration of the product remains controversial. Establishing the preferred concentration is important because this maximises the desirable properties of the product, and in so doing enhances the comfort and compliance of the patient using the product for treatment of RAU These results suggest the usefulness of the chlorhexidine mouth rinse in the clinical treatment of recurrent aphthous ulcers.

Objectives: The clinical aim of this study will be to assess whether there are therapeutic benefits to different concentrations of chlorhexidine mouthwash on promoting healing, reducing pain and preventing ulcer recurrence.

Materials and Methods: This study was a randomised, controlled clinical trial which enrolled 60 patients (aged 18-45 years) with minor RAUs. The participants were randomly divided equally into 3 groups (n = 20) and theoretically exposed to the following concentrations of chlorhexidine mouthwash: Group A (0.06%), group B (0.12%) and group C (0.2%). Subjects were directed to use the AND 2x/day for 7 days. On days 0, 3, and 7, the following clinical evaluations were performed:Size of the ulcer (in mm using a periodontal probe),Pain levels (measured with a 10-point visual analog scale [VAS]),Status of healing (healed, poorly healed, not healed walls), Securrent stone at 2 weeks follow- up.

Results: The scores improved in all groups during the 7 days of therapy. The shortest healing time was in Group C (0.2%) and on an average, ulcers healed on day 5. Groups Group A (0.06%) showed the slowest response exhibiting partial healing in some cases, and Group B (0.12%) demonstrated moderate healing at 6 d.

The pain scale was significantly alleviated in all groups, and there were the extent reduction of 7, 5.5 and 4 points in group C, group B and group A respectively. Thirty per cent of patients in Group C and 10% in Group B reported adverse effects like altered taste and mild irritation, but none in Group A experienced the same. There was no recurrence in Group C (1 case), while two (2) and four (4) recurrences were reported in Groups B and A respectively.

Conclusion: Use of 0.2% CHX results in maximum rate of healing and pain relief, but leads to increased mucosal side effects increasing patient noncompliance. In contrast, 0.12% CHX is a favorable balance of therapeutic benefit in relation to potential to heal and lower potential to cause irritation or alter taste and is a therapeutically practical