Reduction of SARS-CoV-2 viral load in saliva after rinsing with mouthwashes containing cetylpyridinium chloride: a randomized clinical study

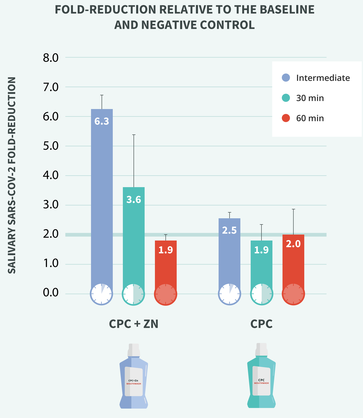
BACKGROUND

Symptomatic patients with COVID-19 typically have a high SARS-CoV-2 viral load in their saliva. Procedures to reduce the viral load in their oral cavity are important for mitigating the viral transmission.

The randomized clinical trial showed that CPC+Zn reduced the viral load by 6.34-fold at 5 minutes, 3.6-fold at 30 minutes, and 1.9-fold at 60 minutes, while CPC reduced the viral load by 2.5-fold, 1.9-fold, and 2.0-fold at the same intervals.

METHODS

- This randomized clinical trial investigated the impact of two mouthwashes (0.075% cetylpyridinium chloride plus 0.28% zinc lactate (CPC+Zn) (n=32), and 0.075% cetylpyridinium chloride (CPC) (n=31)) on the viral load of SARS-CoV-2 in saliva when compared to the distilled water negative control (n=32).
- Saliva was collected before (T0) and after (5 minutes - T1; 30 min - T2; and 60 min - T3) the intervention.
- Viral load in saliva was measured by qRT-PCR assays.
- The data in both groups was normalized for T0 and Negative Control, resulting in fold change values.



RESULTS

- CPC+Zn oral solution reduced the viral load in saliva by 6.34-fold at T1, 3.6-fold at T2, and 1.9-fold at T3.
- Rinsing with the CPC mouthwash reduced the viral load in saliva by 2.5-fold at T1, 1.9-fold at T2, and 2.0-fold at T3.
- CPC+Zn mouthwash or with the CPC mouthwash reduced the viral load in saliva of COVID-19 patients immediately after rinsing.
- The viral load was reduced up to the 60 minute mark.

The current study reinforces the use of these products as preprocedural rinses for patients infected with SARS-CoV-2 and may be used as a risk mitigation practice for asymptomatic patients.

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