

## Phytochemical Profiling, Antimicrobial and Cytotoxic Properties of Four Phlomis species

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### Abstract:

Chewing of the sticks has been recently recommended by World Health Organization (WHO) as effective accessories for oral health. *Salvadora persica* plays an important role in maintaining the integrity of the tooth structure. The purpose of the present study was to determine the effectiveness of *Salvadora persica* extract on saliva pH after acidic changes. Participants were asked to take part in three different days with one-week interval in our open label non-randomized clinical trial. The effects of aqueous ethanolic (80%) extract of fresh *S. persica* sticks, distilled water, and sucrose on pH of saliva were examined at some time points, immediately to 20 min. The obtained results showed that the pH of saliva was significantly increased following gargling the distilled water ( $p=0.007$ ) and *S. persica* extract ( $p=0.000$ ) compared to the control group. In addition, the pH of saliva in a group which applied mouthwash of *S. persica* was significantly increased compared to the distilled water ( $p=0.04$ ). Application of *S. persica* extract as a mouthwash increased the pH of saliva after acidic changes. Therefore, it may be recommended as an alternative to increase pH of oral cavity for oral health improvement.

**Keywords:** antimicrobial, cytotoxicity, flavonoid, *Phlomis*, verbascoside

### References:

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