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Clinical Effects of a Polyphenol-Enriched Chewing Gum Containing *Scutellaria lateriflora* L. and *Cistus* × *incanus* L. Extracts in Subjects with Gingivitis: A Randomized, Double-Blind, Placebo-Controlled Trial

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Objectives. Gingivitis is one of the most common inflammatory diseases affecting the oral cavity and remains an important target for preventive interventions based on nutraceutical approaches. Botanical extracts rich in polyphenols are known for their antioxidant, anti-inflammatory, and antimicrobial properties, which may be beneficial for oral health. *Scutellaria lateriflora* L. and *Cistus* × *incanus* L. are particularly rich in flavonoids and phenolic compounds and have previously shown activity against oral microorganisms. The aim of this study was to investigate the efficacy and tolerability of a chewing gum formulated with these polyphenol-rich extracts in individuals with gingivitis.

Methods. A total of 60 adults aged 18 to 70 years with gingivitis, but without diagnosed periodontitis, were randomly assigned to receive either two chewing gums per day containing standardized extracts of *S. lateriflora* and *C.* × *incanus* or a placebo for a period of 3 months. Clinical evaluations were carried out at baseline and at monthly follow-up visits. Gingival bleeding and inflammation were assessed using the Quantitative Gingival Bleeding Index (QGBI) and the Modified Gingival Index (MGI), respectively. Oral health-related quality of life was measured with the OH-15 questionnaire, while pain intensity was recorded using a Visual Analogue Scale (VAS). Overall oral status was also evaluated through the Clinical Global Impression–Severity (CGI-S) scale.

Results. After 3 months of treatment, participants receiving the chewing gum enriched with polyphenol extracts experienced significantly greater improvements than those in the placebo group. Marked reductions in gingival bleeding and inflammation were observed, as reflected by improvements in QGBI and MGI scores. In addition, subjects in the active treatment group reported better oral health-related quality of life, lower pain perception, and an overall improvement in oral condition according to CGI-S scores. The product was well tolerated, and no clinically meaningful adverse effects were reported during the study.

Conclusions. Administration of *S. lateriflora* and *C.* × *incanus* polyphenol-rich extracts through a chewing gum formulation significantly improved both clinical indicators and patient-reported outcomes in individuals with gingivitis. These results suggest that this food-based, bioactive formulation may represent a safe, practical, and effective nutraceutical strategy to support gingival health and help prevent progression of oral disease.

Keywords: *Gingivitis; Scutellaria lateriflora; Cistus* × *incanus; Polyphenols; Nutraceuticals*