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Poster competition *PC17*

THE EFFECT OF STANDARDIZED *ARONIA MELANOCARPA* L. EXTRACT SUPPLEMENTATION ON SALIVARY CARCINOEMBRYONIC ANTIGEN LEVELS IN PATIENTS WITH ORAL LICHEN PLANUS – PILOT STUDY

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Oral lichen planus (OLP) is a common affliction of the oral mucosa, affecting 0.5% to 2% of the population, primarily middle-aged women, with a 0.44% risk of malignant transformation. Its etiology involves immune dysregulation, microbial infections, endocrine imbalances, and microcirculatory disturbances. OLP pathogenesis is linked to oxidative stress, evidenced by elevated oxidative damage markers and diminished antioxidants. Accurate diagnosis, typically via biopsy and histopathological assessment, is crucial for effective treatment. Saliva, reflecting salivary gland health, offers promise for biomarker research and treatment monitoring. Previous studies identified carcinoembryonic antigen (CEA) as a potential biomarker for mucosal inflammation and treatment response. Traditional OLP therapies include topical corticosteroids, calcineurin inhibitors, retinoids, and phototherapy. Polyphenols, notably flavonoids, renowned for their anti-inflammatory and immunomodulatory properties, have gained attention in autoimmune disorder management. Siberian chokeberry (*Aronia melanocarpa* L.), rich in antioxidants, has shown anticancer and anti-inflammatory effects. A-LIXIR®400 PROTECT (Pharmanova Belgrade, Serbia, a standardized Aronia extract, is a solution for oral use rich in polyphenols and anthocyanins. In a study involving 13 healthy volunteers and 13 OLP patients before and after 28 days of A-LIXIR®400 PROTECT treatment, salivary protein concentrations were measured using a BCA protein assay kit, while salivary CEA levels were assessed via an immunoradiometric assay. Healthy subjects exhibited a median salivary protein concentration of 1.05 mg/mL.In contrast, OLP patients had significantly higher concentrations at 1.5 mg/mL, which decreased to 1.2 mg/mL post-treatment. Salivary CEA levels were notably elevated in OLP patients compared to healthy subjects (258 ng/mL vs. 612 ng/mL), with a reduction observed post-treatment (398 ng/mL). These findings suggest A-LIXIR®400 PROTECT may offer potential benefits for OLP patients, possibly reflected in decreased salivary protein concentrations and CEA levels. However, further randomized controlled trials with larger cohorts are imperative to comprehensively evaluate its clinical efficacy and safety.

Keywords: oral Lichen planus, antioxidants, saliva, carcinoembryonic antigen

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