

Salivary Assessment of Interleukin-6, C-reactive protein and Albumin in Ulcerative Colitis Patients in Relation to Oral Findings

A thesis

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By

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# *Abstract*

**Background:** Ulcerative colitis disease is a chronic inflammatory condition that affect the gastrointestinal tract. In regulation of this inflammatory process, Interleukin-6, C-reactive proteins and albumin have a major role. Overproduction of IL-6 by immunocompetent cells contributes to activate the liver to produce CRP, transudation of plasma albumin and development of the inflammatory condition. Elevated levels of IL-6 in saliva could be expected, because the saliva-producing cells are part of the digestive system.

**Aim of the study:** The purpose of this study was to assess salivary IL-6, CRP and albumin in ulcerative colitis patients in relation to oral findings.

**Materials and methods:** Forty eight saliva specimens collected from three groups of subjects (sixteen newly diagnosed UC patients, sixteen UC patients on medication and sixteen healthy subjects). The specimens were centrifuged and stored at -20°C then three ELISA kits were used for estimating the three variables.

**Results:** There was a significant elevation of salivary IL-6, CRP and albumin level in both newly diagnosed and on medication groups in comparison to healthy persons.

There was a significant elevation differences of salivary IL-6, CRP and albumin level between newly diagnosed and on medication groups. The prevalence of aphthus ulcer was highly significant in the newly diagnosed group in comparison to the other groups. Twenty five percent of patients on

medication complain from candidiasis and only one patients with tempromandibular joints problem (hard clicking).

**Conclusions:** Salivary IL-6, CRP and albumin are elevated simultaneously in UC patients, in both newly diagnosed and on medication groups, but the mean of variables in second group was lower than in the newly diagnosed group. There are no correlation between salivary IL-6, CRP and albumin with oral findings.