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## Effects of Astringent on Peri-Implant Tissue by Measuring the peri-implant crevicular fluid tumour necrosis factor alpha and extent of keratinization

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## ABSTRACT

Objectives: To evaluate the anti-inflammatory effect and extent of keratinisation on periimplant tissues by astringent (Stolin gum astringent) Methods: The study comprised a total of 10 subjects including both male and female within the age of 30-60 years having implant in their mouth. Peri-implant crevicular fluid and swabs were collected from the patient before and after the astringent use. Peri-implant crevicular fluid was collected using graduated micro capillary tubes from the mesial aspect of the implants. Attached gingiva adjacent to implant selected as the site for obtaining cellular material from the surface of the oral mucosa. The cellular material was obtained by scrapping with wooden spatula. The samples were collected over a month time period according to the following schedule: first sample before application of astringent and second sample after 1 month application of astringent respectively. The samples were stored in sterile eppendorf tubes at -20 Celsius until the start of the experiment . Two slides from each patient was prepared for the microscopic examination after staining with Papanicolaou's technique. The number of superficial basal and intermediate cells were counted out of 100 cells and calculated the mean of keratinized cells. Conclusion: Astringent produces a significant reduction in proinflammatory cytokine TNF alpha in periimplant crevicular fluid. Post astringent therapy it was noted that there was an increase in number of keratinized cells seen in 60 percentage of the patients but it is stastistically insignificant.

KEYWORDS: astringent, periimplant crevicular fluid (PICF), TNF- $\alpha$ , periimplant keratinisation, ELISA, implant prosthodontics.

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