Evaluation of salivary PII of the patients underwent hemodialysis treatment

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Introduction: Chronic Renal Failure (CRF) patients have severe oral and gingival conditions, because of their systemic condition and adverse effects of kidney disease. One of the most important symptoms is changes in salivary components.

Purpose: The aim of this study was to evaluate the changes in salivary PII in patients with Chronic Renal Failure (CRF) undergoing hemodialysis.

Methods: A group consisted of 20 patients with CRF (27 females, 8 males, mean age: 50.51 ± 7.59) who was referred to Islamic Republic Khomeini hospital, were selected randomly. PII changes in saliva were analyzed in three stages; before dialysis, during dialysis and after dialysis.

Patients underwent dialysis for 4 hours on average. Unstimulated saliva samples of the patients were collected by the direct method of collection within 10-15 minutes. The PII of salivary samples was determined by PII test kit using electrophoretic device. The data were subjected to Analysis of Variance (ANOVA) and related t-test analysis.

Twenty-three percent of patients were males and seventy-seven percent of them were females. The mean age of patients was 50.51 ± 7.59. The patients received dialysis treatment for 3.45 years on average.

Results: Overall results showed salivary PII of patients were 7.83 before dialysis and 7.82 during treatment and 7.41 after the dialysis. No significant difference was found between the true time intervals regarding patients salivary PII (p > 0.05). However, salivary PII of CRF patients compared with the results of the salivary PII of healthy participants showed that increasing of salivary PII is a symptom of the CRF.