

Some Saliva Properties in Dentate, Edentulous and Denture Wearers

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Abstract

The decrease in saliva flow rate was found to be associated with the absence of some or all the natural teeth and this is related to salivary gland function. On the hand an increase in the secretory capacity of the salivary gland was noticed after denture wearing.

The flow rate , pH, Na & K levels of saliva in dentate , partially and completely edentulous groups was investigated. Resting whole saliva samples were taken from **(16)** dentate participants and compared with the samples of a study group which consisted of **(17)** partially edentulous and **(24)** completely edentulous patients who had never weared a denture before . Both the control and the study groups had age range from **50-60 years** and were selected from prosthetic department at the Collage of Dentistry/ University of Baghdad. **The saliva flow rate, pH value, Na and K levels** were examined for the study groups at **3 periods**:

- (i)** Before denture insertion and compared with that of dentate group.
- (ii)** At the time of the denture insertion.
- (iii)** 2 weeks after the denture being in the mouth.

The results showed that there was a significant decrease in the saliva flow rate both for partially edentulous patients **(0.27 ml/min)** and completely edentulous patients **(0.19ml/min)** than the dentate group **(0.36ml/min)**. A significant difference in the saliva flow rate between the partially and completely edentoulus patients was also found .

Also mean saliva **pH** showed to be significantly higher in the dentate group **(6.634)** than both partially edentulous **(6.372)** and completely

edentulous (**6.104**) but there was non significant difference in **Na and K levels** before denture insertion.

When the finished dentures were inserted into the mouth ,the result in most cases was a profuse reflex in flow of saliva which was greater for completely than partially edentulous patients. **The flow rate, pH and Na levels** showed sharp rise but **K level** showed a non significant change.

Only **saliva flow rate** still with a highly significant change after 2 weeks of the denture being in the mouth ,**Na level** showed a significant difference at that period.

Although mean **saliva pH** showed a significant difference between the dentate group and the edentulous patients both partially and completely before denture insertion but it tend to be more stable and returned to its former level after **2 week** being the denture in the mouth.