Evaluation of oral health status in patients receiving antiepileptic medications AEMs

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By:

Farqad Najm Abed

B. D. S.

Supervised by:

Prof.Dr.Raja H. Al –Jubouri

B.D.S., M.Sc., Ph.D. (Oral Medicine)

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Abstract

Background: Epilepsy is one of the most common neurological disorders**.** About 1-2% of people will be diagnosed with epilepsy at some time in their lives. Genetic, congenital, and developmental conditions are mostly associated with it among younger patients; tumors are more likely over age 40; head trauma and central nervous system infections may occur at any age. Oral complications due to antiepileptic medications (AEMs) had been studied and the relation between oral health status and salivary IgA, Cystatin C and salivary flow rate were studied.

Aims of study

1. To determine the side effects of antiepileptic medications on the oral cavity.
2. To determine the prevalence of stomatitis, xerostomia and taste disorder among patients taking carbamazepine or sodium valproate.
3. To make salivary analysis for IgA, cystatin c and salivary flow rate.

Subjects, materials and methods

This study performed in al- Yarmuk teaching hospital in Baghdad, Samples consist of (70) patients complaining from epilepsy half of them treated with carbamazepine and other half treated with sodium valproate, and (18) healthy control group of both genders and with different ages to detect the prevalence of oral manifestations, salivary IgA and cystatin C changes. This study approved by Ministry of Health and all the patients would give their informed consent.

Results

It was found that:

Salivary IgA has a statistically significant higher value in epileptics as compared to the healthy group. DMFT is significantly lower in epileptics than in healthy control. GI is hardly affected by epilepsy and there was no statistically significant difference between epileptics and healthy controls.

Salivary flow rate was significantly lower in epileptics than the healthy control group. While cystatin C was obviously higher in epileptics but fails to reach the level of statistical significance.

Mucositis in epileptics was significantly higher.

Candidal infection and Dysguisia fail to reach the level of statistical difference.

Conclusions:

The most affected oral measurement by epilepsy was salivary IgA then salivary flow rate followed by DMFT. Cystatin C had a marginal contribution to the context of case –control discrimination. GI was equivocal and had no role in case –control differentiation.

Sodium valproate is safer than carbamazepine when compared by its effects on the oral health. Mucositis, candida infection and dysguisia were lower in epileptics who were treated with Sodium valproate. Salivary flow rate was higher in Sodium valproate - treated group than in carbamazepine group. GI and DMFT were lower in Sodium valproate - treated than the carbamazepine group.