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# Methods

Since epilepsy is a heterogenous group of patients, we have set up a classification system with four subgroups taking into account the type of seizures with special emphasise on the involvement on the masticatory apparatus, seizure frequency and patient compliance (mental state). We compared the subgroups of epilepsy patients with each other and control subjects.

## Criteria of entrance Patients who have been seizure free for years, either with or without medication Patients with rare seizures (less often than once a year) Patients exclusively with seizures that do not involve the masticatory apparatus (absence, myoclonus and certain partial seizures) Patients with frequent partial seizures involving the masticatory apparatus, such that are accompanied by clonisation of facial and masticatory muscles or oral automatisms (e.g. grinding of teeth). Generalised tonic-clonic seizures, if present, appear less often than once a year

Group IV Patients with mental disability, excluding compliance during dental treatment

missing teeth) were determined and prosthetic appliances were investigated by



Results: showed, that DMF-T (p<0.001) was higher in the patient group. The DMF-T (p=0.04) is higher in group III than in group I.

The Prosthetic index indicating the degree of prosthetic replacement in case of missing teeth was significantly lower (p<0.001) in the patient group  $0.39 \pm 0.44$  than in the control group  $0.58 \pm 0.45$ . The index was the lowest in group III  $(0.29 \pm 0.38)$ .

## The number of fixed prosthodontics



### The number of complete dentures



Prosthetic index index 0,578 0.6 0.444 0.396 0,4 0 304 0,299 0,2 p<0,001 Epilepsy Group Group Group Control

### The number of removable partial dentures

6 epilepsy patients wore removable partial dentures on 9 dental arches, where in the control group 7 persones wore on 13 dental arches.



Conclusions. The increased DMF-T index and the lower Prosthetic index of epilepsy patients are the consequences of the combined effect of neglected oral hygiene and dental care oral cavity injuries and increased exertion on the teeth. Dentists tend to opt for quick and simple treatments for inadequate knowledge about the disease. Worse socio-economic background might cause inadequate prosthetic treatment as well.

Objective was to test statistically wether the patients with epilepsy did indeed have a poorer oral health and dental status with the control group of general population

## Patients:

This study was performed with the collaboration of the Dept. of Prosthetic Dentistry and the Dept. of Neurology of the Semmelweis University. 101 nonselected epilepsy patients were screened, the average age was  $37.3 \pm 14.9$ years, comprising 44 women and 57 men, who are in care of the epilepsy outpatient unit of the Dept. of Neurology. The age and sex matched control subjects were recruited at a community pulmonary X-ray screening station.



The average age of the patient and control group did not differ significantly (p=0.8)

Group I Group II Group III Patients with frequent generalised tonic-clonic seizures (more often than once a year)

After history and periodontal examination, the number of decayed, missing and filled teeth (DMF-T score) and Prosthetic index (ratio of arteficial and recording their number and type.