tivity and therefore remained at risk of seizures. In this study we investigate the potential benefits of liquid crystal displays (LCDs) in protecting at-risk individuals from photosensitive seizures.

Methods: Square-wave gratings were presented on three different displays: a standard television with a frame rate of 50Hz, a computer monitor with a frame rate 70Hz, and an LCD screen. The gratings were displayed at 2 and 6 cycles/degree and reversed in phase at 1 and 10 Hz. The Michelson contrast was 90%. The PPRs elicited in a group of photosensitive patients was compared over the three display conditions.

Results and Conclusions: Both the LCD screen and the computer monitor produced significantly fewer PPRs than the television display, and the LCD screen elicited the smallest number of PPRs. It is likely that the absence of flicker in the LCD screen underlies this result. The use of an LCD screen in the workplace therefore provides substantial protection from seizures for individuals with photosensitive epilepsy.

Computerized Methods for Evaluation of Human Brain Damages, Such as Epilepsy and Visual Perception Disorders. R Ruseckaite (Dept. Computer Science, Vytautas Magnus University, Kaunas, Lithuania)

In order to detect the visual perception disorders (VPD) and epilepsy we developed computer interactive system for size discrimination testing (Oxford, 1998 Perception 64). This system contains test procedure, test records database and macine learning algorthm for creation of rules and regularities.

We have performed 420 tests for persons with damage of temporal and occipital lobes of brain. In parallel we have registered the electoencephalographical (EEG) data for those persons. The EEG data and the testing results were eva luated using computerized methods (Kaunas, 1997 Biomedical engineering, 118) in order to detect the relation between EEG data and VPD. According to the computerized methods (FTPI, Artificial intelligence, 56) we have created rules, which allowed us to classify the perons with VPD into differentgroups dependently from the damage of brain lobe. In conclusion we could state that EEG data corelated with VPD size-form discrimination tsting results. These methods of VPD detection could be used for previewing the size-form detection testing results according to the EEG data even for healthy persons.

EpiBase: A Tool for Management of Epilepsy in Clinical Practice. T Sorensen (1), L Friis (2), P Sidenius (3), J Alving (4) (1- Department of Stroke, Medical Center, Copenhagen University Hospital Hvidovre, Departments of Neurology, 2- Odense University Hospital and 3- Aarhus University Hospital; 4- The Comprehensive Epilepsy Center Dianalund, Denmark)

Rationale: EpiBase is a Windows 95/98 based tool for the management of patients with epilepsy in the outpatient clinic. EpiBase was developed by the Danish Epilepsy Society in cooperation with Odense University Hospital, Denmark. The goal was to improve the quality of the treatment of patients with epilepsy in Denmark. We present our system and some preliminary data.

Methods: EpiBase is designed to be a nation-wide system. All data from the two first tertiary epilepsy centers and the Comprehensive Epilepsy Center Dianalund are included in this presentation.

Results: More than 1.000 medial records have entered the database. The uniform registration of clinical relevant data forms a good platform for case finding and identification of clinical problems related to subgroups of patients/medications. Preliminary data will be presented.

Conclusion: EpiBase is proven easy to use and is a useful tool for enhancement and improvement of the treatment of patients with epilepsy.

Comparison of Traumatic Events in Epileptic Patients and Controls. MY Neufeld, V Chistik, AD Korczyn (EEG Lab and Epilepsy Clinic, Neurology Department, Tel-Aviv Medical Center, Tel-Aviv, Israel)

Epileptic patients are encouraged to lead a normal life as far as possible. There is little information concerning the incidence of traumatic events in epileptic patients compared to normal subjects.

During a period of 3 months we presented a questionnaire to consecutive patients with epilepsy attending our tertiary referral outpatient epilepsy clinic and age and sex matched controls, regarding physical traumatic events in the preceding 3 months.

There were 145 epileptic patients: 121 with seizures (age: 36(15y, 50 % males), 24 seizures-free (age: 39(17y, 13 males), and 145 controls (age: 36(15y, 50 % males). There was no significant difference between the two subgroups of epileptic patients regarding the duration of epilepsy and type of seizures. Traumatic events (n = 27, three of which were seizures-unrelated) were most common in patients with seizures followed by controls (n = 20) and absent in seizure-free patients (p(0.001). Head was most commonly injured in epileptics (p = 0.002) while the extremities were more commonly involved in controls (p = 0.04). Epileptic patients with seizures had traumatic events mainly at home whereas controls had traumatic events mostly at work and in public places (p(0.001). There was no difference regarding the type and severity of trauma between the two groups.

Traumatic events are more frequent among epileptics with seizures, compared to normal subjects or epileptics with controlled epilepsy. However, traumatic events not related to seizures are fewer in epileptic patients with and without seizures compared to controls, resulting probably from increased cautiousness by persons with epilepsy.

Diagnostics of Epilepsy and Its Preclinical Stage by the Method of Fractal EEG Analysis. SK Khorshev, EA Korsakova, VM Uritsky, VB Slezin (VM Bekhterev Psychoneurologival Institute, St.Petersburg, Russia)

Rationale: The advantage using of the new diagnostic method of fractal EEG analysis is substantiated in the present study. This method permits to analyse the portions of EEG without a paroxysmal activity.

Methods: The EEG recording was performed using the 19-channel digital encephalograph 'Encephalan-131-01' (Taganrog, Russia) based on an IBM-compatible personal computer. The frequency of signals discretisation was 160 Hz. Electrodes were placed according to the international 10-20 system. The derivation O1 with distinctly expressed alpha-rhythm was selected for analysis. Fractal dimension of alpha-rhythm power spectra variation (D, when D = (5-b)/2, b-spectral index) served as quantitative characteristic of the results. The fractal dimension was measured for background EEG without a paroxysmal activity on the analysis epoch of 5 min.

Results: Fractal dimension of background EEG was obtained to compose 2.05(0.16 for the group of clinically health subjects (n = 10) and to increase to 2.24(0.11 for the group "predisease" of subjects not suffering from epileptic fits (n = 27), but with a paroxysmal activity which visually observed on EEG. The fractal dimensions of EEG increased more else to 2.37(0.07 for the group of epileptics (n = 29).

Conclusions: The method of fractal EEG analysis successfully elicits differences of background brain activity on various stages of epilepsy pathogenesis that is particularly important on its preclinical stage.

Comparing Efficacy of Carbamazepine vs Na-Valproate on 86 Complex Partial Seizures. AN Moezi (Iran Neuropsychiatriy Society, Tehran, Iran)

Material, object, method: Clinical data and 3 courses EEG, confirmed the pure complex partial seizures (CPS, Myoclonus and/or Psychomotor attacks) cases, aged (14-22 Yrs), with (2-10 FITS per WEEK. (Divided into 2 separate groups): 1) 50 Cases out of 86 (30 Males, 20 Females) took CZN Monotherapy (Carbamazepine) during 18 Months, maintenance daily dose ranged 200-600 mg t.i.d. (10-20 mg/kg), in 47 cases 100 % attacks controlled, (reduced to the limit of 65 % in 3 Cases.

2) 36 patients (30 Males (6 Females) took Na-Valproate as Monotherapy for 18 Months, daily dose (30-50 Mg/Kg), frequency of their attacks curbed to 100 % in 28 cases, (reduced to (70-80 %) in 8 patients.