

Retrograde memory was assessed on measures of famous news events, famous faces, and autobiographical memory for facts and incidents. Quantified PET and MRI data were available on the patients.

Korsakoff patients showed a retrograde memory loss extending back 20 or 30 years with a 'temporal gradient' ie relative sparing of early memories. However, a small group of patients with irradiation to the diencephalon causing anterograde amnesia showed spared performance on retrograde memory tasks, suggesting that the problem in the Korsakoff group results from concomitant frontal lobe or cortical atrophy. Patients with temporal lobe lesions also showed severe retrograde memory loss extending back many years, but their 'temporal gradient' was flatter than in the Korsakoff group, largely attributable to the herpes encephalitis patients. Patients with frontal lobe lesions also performed very badly in the recall of autobiographical incidents and news events, performing somewhat similarly to the Korsakoff patients on these two tests. Performance on a cued recall and a recognition task indicated a retrieval component to the deficit across the patient groups. It is concluded that pathology in the temporal cortex and frontal cortex produces a retrieval deficit from remote or retrograde memory.

#### PSYCHIATRIC ILLNESS ONE YEAR FOLLOWING HEAD INJURY

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**Objective:** Although neuropsychiatric morbidity following head injury is known to be common, no comprehensive population-based study of outcome following head injury exists. We have set out to study all the admissions following acute head injury within a year between 1st April, 1994 and 31st March, 1995 in the South Glamorgan Health District of the U.K. (general population 400,000) to estimate the incidence of morbidity one year following head injury.

**Method:** All patients have been assessed one year following head injury using a purpose-designed questionnaire for data collection, Mini mental state (MMS) and other supplementary neuropsychological tests to assess cognitive deficit. The Clinical Interview Schedule-Revised (CIS-R), Psychotic Screening Questionnaire, GHQ-28 and a Post Traumatic Stress Disorder Questionnaire were used to screen for psychiatric illness. Those who reached caseness according to the initial interview were further assessed by the Schedule for Clinical Assessment in Neuropsychiatry (SCAN) to get an ICD-10 and DSM-4 diagnosis of Psychiatric illness.

**Results:** Of the 122 patients approached so far, 28 are either untraceable or have refused to take part. Of the remaining 94 patients, 12 are deceased, 4 are in persistent vegetative state, 8 have severe disability according to Glasgow outcome scale and could not be assessed. Fifteen patients had a diagnosis of psychiatric illness (mainly affective disorder). The MMS score of 32 patients was below 24. Another 29 patients showed deficit in other neuropsychological tests (mainly in information processing) although they scored 24 or more in MMS.

#### AFFECTIVE DISORDER, TEMPORAL LOBE SYMPTOMATOLOGY AND MIGRAINE. A STUDY OF MIGRAINE CLINIC ATTENDERS

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There is evidence from migraine clinics, psychiatric populations and

epidemiological surveys that migraine and affective disorders are linked. About a third of migraine clinic attenders report migraine aura symptoms which may represent temporal lobe dysfunction. The aims of this study were to assess temporal lobe symptomatology and its relationship to mood disturbance between migraine attacks.

To this end we carried out a comprehensive assessment of aura symptomatology, an evaluation of mood (past and present) using the Schedule of Schizophrenia and Affective Disorder-Lifetime version (SADS-L), the Hamilton Depression Rating Scale (HDRS) and the Hospital Anxiety and Depression Scale (HAD). 102 patients from the hospital's migraine clinic were assessed. The null hypothesis was that there would be no relationship between temporal lobe symptomatology and mood disorder in migraineurs.

Almost 60% of patients had a past psychiatric history as evaluated using the SADS-L. 40% had a present definite affective diagnosis on the HAD and 25% were depressed as measured by the HDRS. A third of patients had more than five temporal lobe symptoms (tls's) during their typical attack and the presence of such tls's, both in the aura phase of the migraine and the headache itself, was significantly correlated with scores on the ratings for affective disorders.

**Conclusion:** not only is affective disorder common in patients attending a migraine clinic but it is also linked to the presence of temporal lobe symptoms during the attack.

#### A NEUROPSYCHOLOGICAL AND SPECT STUDY OF EPILEPSY AND SCHIZOPHRENIA

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Patients with temporal lobe epilepsy (TLE) are at increased risk of developing schizophrenia. Early studies of this association made some of the first contributions to the growing body of evidence implicating temporal lobe dysfunction in schizophrenia. However, the overwhelming majority of patients with TLE never develop schizophrenia and clearly a more discriminating account of the relationship between temporal lobe abnormalities and the pathophysiology of schizophrenia is required. We have studied 3 groups of patients: those with chronic interictal schizophrenia-like psychosis of epilepsy (SLPE), those with schizophrenia, and those with epilepsy, together with a normal control group (25 subjects in each group). All subjects were investigated with a battery of psychometric tests which included tests of memory and executive function. A proportion of the 3 patient groups also underwent functional neuroimaging with SPECT using a split-dose, verbal fluency activation technique. Patients with SLPE and those with primary schizophrenia were impaired on psychological tests of episodic memory when compared with the epileptic and normal control groups. The greatest memory deficits in the two psychotic groups were seen for verbal material. Both psychotic groups also showed impairment in tests of executive function. These results implicate dominant temporal lobe and prefrontal dysfunction in both SLPE and schizophrenia. By contrast, the SPECT study revealed anterior cingulate abnormalities in the schizophrenic group but dominant temporal lobe dysfunction in SLPE. The findings of these two sets of investigations might be reconciled if schizophrenia involves a functional disconnection between the prefrontal cortex and temporal lobes: while the neuropsychology results implicate dysfunction in both regions in the two psychotic groups, the SPECT findings suggest that this may have a different pathological basis in the two conditions.