in 26 out of the 29 patients with these regions resected, despite the absence of clear MRI abnormalities in 9 patients.
Conclusion: Abnormal responses to SPES are functional markers of epileptogenic structural abnormalities, can identify epileptogenic cortex, and predict surgical outcome.

009 PREOPERATIVE fMRI PREDICTS MEMORY DECLINE FOLLOWING ANTERIOR TEMPORAL LOBE RESECTION

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Introduction: Anterior temporal lobe resection (ATLR) benefits many patients with refractory temporal lobe epilepsy (TLE) but may be complicated by material specific memory impairments, typically of verbal memory following left ATLR and non-verbal memory following right ATLR. Preoperative memory functional MRI (fMRI) may help in the prediction of these deficits.
Methods: 15 TLE patients undergoing ATLR (7 left, 8 right) performed an fMRI memory paradigm which examined the encoding of words, pictures and faces.
Results: Activation within the ipsilateral hippocampus was predictive of postoperative memory change. This was the case for left TLE patients in whom greater left hippocampal activation for word encoding significantly correlated with increased verbal memory decline following left ATLR, and for right TLE patients in whom greater right hippocampal activation for picture encoding significantly correlated with increased non-verbal memory decline following right ATLR. In both cases no correlation was observed for the contralateral hippocampus.
Discussion: These findings suggest that preoperative memory fMRI may be a useful non-invasive predictor of postoperative memory change following ATLR and provide support for the functional adequacy theory of hippocampal function.

010 CAMPATH 1-H USE IN PATIENTS WITH MULTIPLE SCLEROSIS: EXPERIENCE FROM THREE REGIONAL CENTRES

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Alemtuzumab (Campath 1-H) is a humanised monoclonal antibody targeting CD52 antigen on cell surfaces leading to rapid and prolonged T lymphocyte depletion. Recent open label studies of alemtuzumab have demonstrated some efficacy in relapsing and secondary progressive multiple sclerosis; however, information concerning its safety and side effect profile is limited.

Fifty seven patients with multiple sclerosis were treated in three regional multiple sclerosis treatment centres. Of these, 46 patients had relapsing-remitting, 7 secondary progressive and 4 primary progressive disease. All patients were assessed and followed up according to a predetermined protocol. Patients received either 120, 100 or 60 mg of alemtuzumab over 5 days. Patients were retreated annually with an attenuated regime of 36 or 60 mg of alemtuzumab over 3 days where appropriate.

Annualised relapse rates fell from 2.1 to 0.2 in the first year and 0.2 overall in patients with relapsing-remitting disease and from 1.01 pretreatment to 0 in the first year following treatment and 0.21 overall in secondary progressive disease. Immediate side effects seen during or within 7 days of the commencement of treatment were common and included rash (35), headache (2), transient worsening of pre-existing neurological deficit (2) and chest tightness (2). An increased incidence of delayed co-morbidity with autoimmune disease (8) or opportunistic infections (8) was also observed. In addition 2 patients developed cancerous or pre-cancerous conditions.

Although alemtuzumab appears to be effective in reducing relapses in both relapsing-remitting and secondary progressive disease in the short to medium term, it has a significant side effect profile. These effects require long-term patient surveillance and may restrict its use to those patients with more aggressive disease or those in whom conventional treatments have failed. Studies of larger numbers of patients over longer periods are needed to evaluate its safety further.

011 THE IMMUNOGENICITY OF NATALIZUMAB IN PATIENTS WITH MULTIPLE SCLEROSIS: RESULTS FROM THE AFFIRM STUDY

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Background: Natalizumab (Tysabri) significantly reduced sustained disability progression by 42% ($p<0.001$) and the annualised relapse rate by 68% ($p<0.001$) over 2 years in relapsing multiple sclerosis patients in the AFFIRM study. Similar to other protein-based therapeutics, antibodies may develop to natalizumab during treatment.
Objective: To report the incidence and clinical impact of antibodies to natalizumab in AFFIRM.
Methods: AFFIRM was a 2-year, randomised, double-blind, placebo-controlled, phase 3 clinical trial. Anti-natalizumab antibodies were measured using both ELISA and functional assays every 12 weeks. Patients were categorised as "transiently positive" if they had detectable antibodies (≥ 0.5 g/ml) at a single time point, and as "persistently positive" if they had antibodies at ≥ 2 time points ≥ 6 weeks apart.
Results: Antibodies were detected in 57 of 625 (9%) of natalizumab-treated patients: 20 (3%) were transiently positive and 37 (6%) were persistently positive. Persistently positive patients showed a loss of natalizumab efficacy as measured by disability progression ($p<0.05$), relapse rate ($p=0.009$) and lesions on magnetic resonance imaging scans ($p \leq 0.05$). The incidence of infusion-related adverse events was significantly higher in persistently positive patients than in transiently positive and antibody-negative patients.
Conclusions: The incidence of persistent antibody positivity to natalizumab was low, and associated with reduced clinical benefit and infusion-related adverse events.

012 THE SYNDROME OF TRANSIENT EPILEPTIC AMNESIA

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Background: Transient amnesia can be the principal manifestation of epilepsy. However, the diagnosis of transient epileptic amnesia (TEA) is often delayed and remains controversial. The amnestic attacks may be associated with complaints of persistent memory difficulties. This study was designed to provide the first description of TEA in a substantial series of patients.
Methods: 50 patients with TEA were recruited using previously established diagnostic criteria. We assessed clinical features and performed neuropsychological evaluation and magnetic resonance brain imaging in patients and 24 matched controls.
Results: TEA develops in later life (mean onset 62 years of age). Amnestic episodes are frequent (median 12/year), brief (median duration 30–60 min) and often occur on waking (37/50 cases). Olfactory hallucinations occurred in 21 patients. Attacks ceased on anticonvulsant medication in 45/47 patients, but 40/50 patients described persistent memory difficulties. Despite normal performance on standard memory tests, patients exhibited accelerated forgetting of verbal and visual material over 3 weeks in comparison with matched controls ($p<0.001$) and loss of autobiographical memories for events extending back over 40 years ($p<0.001$). The mean interval to diagnosis was 21 months.
Conclusion: TEA is a distinctive epilepsy syndrome with characteristic clinical features. It is associated with accelerated forgetting and remote memory loss.

013 CLUES TO DYSFERLINOPATHY DIAGNOSIS IN A UK POPULATION

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Background: Limb girdle muscular dystrophy type 2B (LGMD2B) and Miyoshi myopathy (MM) are allelic disorders caused by mutations in the