A question of immunity

Could the immune system play a role in epilepsy? Our immune systems defend our bodies from infection and foreign bodies by producing antibodies to destroy any unwanted agents. Occasionally the body accidentally produces antibodies against one of its own proteins, causing ill health. This is known as autoimmunity and the antibodies are known as auto-antibodies.

Type 1 diabetes, rheumatoid arthritis and multiple sclerosis are all examples of autoimmune conditions, diagnosed from both their clinical effects and the presence of specific auto-antibodies in the bloodstream. Researchers now suspect, however, that autoimmunity may be involved in some forms of epilepsy.

The study of autoimmune epilepsy and antibodies is still in its infancy, but a recent review published in Curr Opin Neurology gives hope that auto-antibody testing may play an important role in future diagnosis and treatment of epilepsy in people who do not respond to anti-epileptic drugs (AEDs).

Since 1980, scientists have been trying to prove the existence of auto-antibodies to brain proteins, in the hopes that if autoimmune forms of epilepsy are discovered, these might respond to immunotherapy where AEDs have not worked.

Scientists have been looking at limbic encephalitis (LE), an acute inflammation in the brain which can affect the hippocampus giving rise to temporal lobe epilepsy. Evidence suggests that the cause of LE can be autoimmune and consequently seizures can result from the direct effects of auto-antibodies. Four auto-antibodies have been linked to LE and these are increasingly being detected in some people with epilepsy.

The review concludes that there is some evidence to support the existence of autoimmune mechanisms in a proportion of epilepsy syndromes but insufficient evidence to make it a clinical goal for animals as it was for people.

Scientists have been warned that the popular herbal remedy, ginkgo biloba, may increase the risk of seizures in people with epilepsy.

Ginkgo biloba remedies are often used for health problems ranging from dizziness to memory loss. But German scientists, working with anti-epileptic drugs.

Professor Philip Patsalos, consultant clinical pharmacologist at the TDM Unit said that a seizure-free status was the same clinical goal for animals as it was for people. 'Vets have their own pathology laboratories

A new initiative to help people back to work after a period of ill health is due to be introduced this month. A ‘statement of fitness for work’, commonly referred to as a ‘fit note’, is expected to replace the traditional doctor’s sick note providing parliament gives its approval.

The ‘statement of fitness’ aims to help people return to work as soon as possible, in line with medical evidence that shows work is generally good for health and well being and can aid recovery in many conditions.

The new note allows GPs to specify whether you are ready to go back to work and how simple changes to the job you do may speed up your return to the workplace.

Seizures in pets can be distressing both for the animals and their owners. As in human beings, epilepsy is the most common neurological disorder in cats and dogs, with seizures being treated by a range of anti-epileptic drugs.

Now pets can benefit from the same level of therapeutic drug monitoring as people with epilepsy, in an attempt to maximise the efficiency of their medication and decrease side effects such as sleepiness, wobbliness, hyperactivity and depression.

The Therapeutic Drug Monitoring (TDM) Unit at the National Society for Epilepsy’s Chalfont Centre in Buckinghamshire, has extended its services to veterinary practices and its clients already include a menagerie of pets and owners, some of which can be very dysfunctional. What works on one side of the river does not necessarily work on the other side. What is universal throughout, however, is the challenge of the four ‘A’s: accessibility, affordability, availability and awareness.

The vastness of the territory and the sparseness of medical services make accessibility a huge problem. Of the 40 least wealthy countries in the world, 80% are in Africa. Poverty and lack of human resources mean that making accessibility a huge problem.

Ten million people in Africa are affected by epilepsy, and 80% of those are not treated with readily available modern drugs. Professor Ley Sander, a leading neurologist at the National Society for Epilepsy, describes the challenges of working in Africa

‘There are very few neurologists in sub-Saharan Africa. For example in some countries there is one neurologist for every 5 – 10 million people. There are only five or six centres throughout the whole continent with up-to-date MRI scanners and on top of this, epilepsy is an amazingly stigmatised condition. One young lady almost died in hospital with her family preferring her to be treated by a traditional doctor rather than admitting she had epilepsy. The stigma extends to the family rather than admitting she had epilepsy.

Professor Ley Sander, a leading neurologist at the National Society for Epilepsy, reacted cautiously to the report. ‘We believe that some herbs such as St John’s Wort, are linked with anti-epileptic drugs.

FOR CENTURIES EPILEPSY was confined to a shadowy world of shame and denial. Secrecy was considered the best form of treatment for a condition associated with hysteria, syphilis and impairment of the intellect. Indeed during the 19th century, many who experienced seizures were incarcerated in asylums, women more so than men as their anger and hysteria were considered at odds to the accepted passivity and compliant model of womanliness.

The legacy of this misguided attitude is a wealth of unsolved mysteries surrounding the lives of those whose eccentricities or withdrawal from society were often explained away as detachment on account of unwanted love or isolation due to tuberculous.

Emily Dickinson, considered to be one of the finest poets of all time, is a prime example. The conventional portrayal of the American writer is of a secluded character who always wore white and shut herself away from life, only to correspond through poems and letters with a trusted circle of friends and associates. But as Lyndall Gordon’s new biography Lives Like Loaded Guns: Emily Dickinson and Her Family’s Feuds reveals, there was something more explosive than a broken heart keeping the young poet apart from every day life on the east coast of America. Emily Dickinson’s secret existence could well have been a result of the ‘volcano’ within her head, the ‘loaded gun’ that waited to ricochet through her body. Emily Dickinson’s secret existence could well be explained by epilepsy. Gordon puts up a good case, drawing on Dickinson’s secret prescriptions for a medicine made up of glycerine, often used at that time to treat epilepsy. Her father would travel long distances to have the prescription prepared at a drugstore in Boston, far from prying eyes in her home town.

Most poignantly she draws on Dickinson’s 1,789 poems, the majority of which were published posthumously, which describe with metaphor and spasmodic rhythm, the dysfunction inside her brain. ‘I felt a cleaving in my mind’As if my brain had split’ tried to match it – Seamy