emergency. A separate form of brain involvement in lupus is associated with Hughes syndrome (the antiphospholipid syndrome). In this form of the disease the cause is totally different - blood clots or "sticky blood". In patients where this is suspected, brain scans are usually required. These may show localised areas where brain blood supply has not been adequate. The treatment in these patients is different and requires thinning of the blood, either with aspirin or, in more severe cases, with anticoagulants such as warfarin (coumadin).

For less dramatic brain involvement the choice of treatment in many ways is more difficult. Many, many patients are not treated who perhaps should be treated. In some patients the depression is a major problem and requires conventional anti-depressive treatment. The more modern pills for depression are very superior to older medications and cause far less side-effects. The opinion of a psychiatrist or psychologist may need to be sought as to whether medical treatment is appropriate, especially where there might be dangers of drugs interacting.

In summary, the vast majority of patients who have brain involvement can be treated successfully with a full return to normal daily activities.

## THE LUPUS UK RANGE OF FACT SHEETS

**Further fact sheets are available as follows:**

Lupus Incidence within the Community
Lupus A Guide for Patients
Lupus The Symptoms and Diagnosis
Lupus The Heart and Lungs
Lupus and the Kidneys
Lupus The Joints and Muscles
Lupus The Skin and Hair
Lupus The Mouth, Nose and Eyes
Lupus and the Feet
Lupus Fatigue and your Lifestyle
Lupus and Men
Lupus and Light Sensitivity
Lupus and Pregnancy
Lupus and Blood Disorders
Lupus and Medication
Lupus and Associated Conditions

FACT SHEETS

LUPUS UK is the registered national charity caring for people with presently-incurable lupus and has some 6,000 members who are supported by over 25 Regional Groups.

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Please contact our National Office should you require further information about lupus. LUPUS UK will be pleased to provide a booklist and details of membership.

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# LUPUS
# and the Brain

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# LUPUS and the Brain

Doctors throughout the world are now recognising the importance of subtle forms of brain involvement in lupus as well as the more obvious brain problems. Never underestimate brain involvement. It may vary from mild depression, to memory loss, to much more severe problems such as seizures. In general there are two main causes of brain disease in lupus. The first is lupus disease itself which can cause alterations in the brain activity. The second is the clotting disorder associated with some lupus patients, the antiphospholipid or Hughes syndrome. It is very, very important for the doctor to try to distinguish between these two major causes of neurologic involvement as the treatments are clearly very different.

## Depression

Depression is an important manifestation of lupus - in some it is the presenting sign of the disease. Many patients and, certainly, many doctors wrongly attribute depression in lupus merely to having a chronic illness and all that goes with it. This is not correct. The disease itself causes depression. Depression is an integral part of lupus in some patients - indeed management of the lupus often itself lifts the depression. The management of depression in lupus rests on a combination of treating the underlying lupus itself as well as possibly adding in antidepressant therapy. One of the medical advances in the last decade has been the introduction of newer milder antidepressants with less of the severe side-effects which so hampered older treatments.

## Headaches

Headaches are common in lupus. In some patients a history of headache going back to their early teens is a feature of the disease. They may be a part of the lupus itself or may be associated with a clotting (antiphospholipid) syndrome. They may or may not have a migrainous element with flashing lights and visual disturbances. In any patient with lupus who suffers from headaches a systematic search for known causes should be carried out including blood pressure checking, examination of the sinuses, examination of the blood for “sticky blood” and ultimately, if indicated, a brain scan (either an MRI scan or a CT scan).

## Fits

Sometimes lupus first starts in the most dramatic way with a seizure or a series of epileptic fits. This is usually when the patient is untreated and the disease fairly active. It is also an important feature of the antiphospholipid syndrome (Hughes syndrome). It is sometimes associated with high fever. Fits or seizures are one of the non-specific ways the brain reacts to severe illness. Once the lupus is treated further fits are the exception rather than the rule.

## Movement Disorders

The same applies to movement disorders. Occasionally, patients develop chorea (St Vitus Dance) with jerky hand movements or head movements. This is simply a manifestation of abnormal brain function and, once again, is often associated with the “sticky blood” (Hughes) syndrome.

## Spinal Cord

Rare, but extremely acute and very dangerous, is spinal cord involvement, which may lead to permanent paralysis. It is now recognised that immediate treatment with both steroids and possibly anticoagulants may reverse this. Fortunately, it is a very rare manifestation of neurologic lupus.

## Psychiatric disturbance

During severe lupus flares patients can experience a variety of psychiatric disorders varying from mild personality disorders to severe psychotic behaviour. Some lupus patients are wrongly diagnosed as having schizophrenia at the onset of their illness. Interestingly, treatment of the lupus in these patients results in total improvement in the psychiatric features. This is one of the most important observations to come out of lupus research as it provides possible insights into other mental disease.

Patients with the antiphospholipid (“sticky blood”) syndrome suffer memory variants, from subtle (“I couldn’t remember what I had gone into the shop for”) to severe memory loss. Lupus doctors are now beginning to realise how common and important this aspect of the disease is. Clearly, any patient who feels that this is a major feature of the disease requires full neurologic examination, possibly including MRI, as well as testing for the antiphospholipid syndrome.

## Treatment

Firstly, it is important to realise that brain involvement in lupus is extremely common. Secondly, in the vast majority of patients there is complete resolution of the problem with time and most patients get better.

If the brain symptoms start dramatically, for example with fits or severe neuropsychiatric disease, the treatment, as with most active forms of lupus, is with steroids and immunosuppressive drugs. The doses of steroids used are less than in the old days - for example 60mg daily in the majority of the worst cases - rarely is a higher dose than this required. An alternative way of giving steroids is by “pulse” injections on an intermittent basis. This is becoming more popular as it is a simple and more rapidly effective way of giving steroids, especially in an