

## **Keep Your Eye on CFIDS**

### The Clinical and Scientific Basis of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

Eye problems are another part of CFIDS that have been poorly studied, but the neuro-ophthamological manifestations are varied and quite common. A few years ago, Alfredo A. Sadun, MD, Ph.D, made a surprise appearance at a CFIDS support group in California. Only the leader knew the reason he came. The other 44 PWCs filled out a questionnaire and, before leaving, had a simple examination. Dr. Sadun, a professor of ophthalmology and neurosurgery at the University of Southern California School of Medicine, found all 44 reported some ocular complaint.

Nearly every PWC had asthenopic symptoms (tired eyes, sore, watery or weak). Blurred vision was reported in two-thirds of the group that was greater at near while one-half said blurred vision also occurred at a distance. Oscillopsia (bouncing or jiggling of the vision) as reported in one-quarter of the PWCs, while seven complained of double vision (diplopia).

Objective signs showed 23% had a primary horizontal nystagmus and another 18% had a very obvious lateral gaze nystagmus. In a healthy population, only 5% will be found with lateral gaze nystagmus. This astonished Dr. Sadun since this effect is always pathological (i.e., something that arises from a disease).

A few patients were then examined in greater detail. These PWCs showed abnormalities in accommodating which is "a process by which the curvature of the lens changes." In simple terms, the PWC takes much longer to clearly focus on an object that is brought from far to near as well as focusing at close range. Muscle weakness would not explain this nor would the elasticity of the lens.

"Limitation of ductions" was noted and all the abnormalities found point to brain cell dysfunction. In fact, a brainstem encephalitis could include all of the above problems.

Treatments for dry eye are artificial tears sold over the counter. Those with focusing problems or blurry vision should not wear bifocals. These acquired defects are especially found in the first year of CFIDS and getting prescription lenses could compound the complaint! Half-glasses also have a negative effect. Bifocals and half-glasses only make the defect worse because the center of the focusing mechanism has to "jiggle back and forth across two different visual corrections." No-line multi-focals with graduated lenses are still worse and may cause a PWC to stagger, become uncoordinated, and disoriented. Two pair of glasses should be purchased. One is for reading and the second for distance viewing.

Many PWCs are light sensitive and many doctors have noted this. Severe PWCs may have to wear sunglasses while inside. Very dark sunglasses that cut UV light as well as visors are suggested as a coping technique.

## **British Doctor Says It's All in the Eyes**

Originally published by the London Daily Mail, August 11, 1996 and reprinted in The MESSenger in September 1996. A note from the editor prefaces The MESSenger article, stating "Most readers have suffered enough dashed hopes that they now take miraculous breakthrough stories with a large grain of salt. Nevertheless some of them provide a reason for hope -none more than those which suggest a clear, simple way to diagnose CFS/ME."

Dr. Ian James, consultant and reader in clinical pharmacology at London's Royal Free Hospital School of Medicine, believes he has found a way of diagnosing Chronic Fatigue Syndrome and hopes to develop it into a treatment program.

The breakthrough came after months of research spearheaded by Dr. James and Prof. John Barbur of London's City University. It centres around the discovery that the eyes of ME sufferers respond to light and motion stimuli in an unusual way.

"Several doctors treating ME patients noticed they showed an abnormal pupil response," says Dr. James. "When the pupil is subjected to changes in light or is required to alter focus from a close object to one further away, it does so by constricting and dilating.

"ME patients' eyes do this as well, but there is an initial period of instability when the pupil fluctuates in size."

Using a computerized "pupilometer" which precisely measures eye response, Dr. James embarked on a detailed study of this phenomenon on ME sufferers, using non-sufferers as a control.

A variety of shapes was flashed onto a screen and moved across it while a computer precisely measured pupil reflex to each of the 40 tests. Results confirm that the pupil fluctuation was peculiar to those participants who suffered from ME.

Dr. James concluded the abnormal pupil response is a result of some kind of interference in the transfer of impulses from the brain to the eye.

He believes ME is the result of a deficiency of a neuro-transmitter called 5HT, whose job is to pass impulses through nerves to cells. The eyes of ME sufferers treated with 5HT behave normally.

"I do not yet know how the ME virus causes abnormalities in 5HT transmission but it does inhibit its function," says Dr. James. By administering drugs to stimulate levels of 5HT together with treatment aimed at fighting postviral disease, Dr. James believes ME sufferers can be cured.

"I believe that ME is a problem of the brain, a neuro-pharmacological disorder. The people I see are very motivated towards getting better. ME can mean they are bedridden for years, yet they look quite well so people have no sympathy. I believe there is a physical cause for ME but there is undoubtedly a strong link between it and the psychological make-up of the sufferer.

Many sufferers are perfectionists who take on a mammoth work load. They cannot switch off. If they are laid low by a virus, they do not recover from it properly and there is where the problems start.

"It may be that their psychological make-up renders them vulnerable to ME. But it is not the cause...There is no evidence of structural damage to the brain, so everyone is capable of recovery from ME."