

PLECONARIL – A NEW DRUG FOR ENTEROVIRAL INFECTIONS

SIGNIFICANTLY GOOD NEWS FOR ALL WHO CARE ABOUT M.E. (MYALGIC ENCEPHALOMYELITIS)!

(1) THE ANNOUNCEMENT

Since early January 2004, scraps of information about this event have been coming to me in bits and pieces via email and ME Group publications. Much of this was, as usual, a mere “whisper” without editing or substantial foundation. It seemed a waste of time to respond. However, Simon Lawrence of the 25% ME Group had a more critical approach and sent information about a consortium formed between a professor, with whose work I had long been acquainted, and a commercial laboratory concerned with providing a rapid diagnostic service for his unit. The agreement was between competitive technologies, Inc. - For the Rapid Assay of Human Enteroviruses and Professor Harley A. Rotbart (Professor of Paediatrics and Microbiology, Infectious Diseases and Epidemiology in children) at a well known university and children’s hospital in Denver, Colorado, USA. The aim was to prevent the unnecessary expense and trauma of sending children to hospital and providing the wrong treatment. This was substantial enough for me, because fortunately, I had been able to purchase his excellent text book on “Human Enteroviral Infections” published by the American Society of Microbiology in 1995, and found that we are of the same heart and mind. I have followed his work ever since! There will be no disappointment with the research from his unit!

(2) WHAT ARE ENTEROVIRUSES?

This is a “collective name” for 5 subgroups of a very large family of Picornaviruses (Pico, tiny size) (RNA Ribonucleic Acid, their internal genetic constitution) Polio, Coxsackie A and B viruses, Echovirus and their viruses only number based (EV 68 – 78). They account for millions of infections each year and have been recognised since antiquity (1500 BC), but most infections are subclinical (without symptoms) and simply induce natural immunity. As viruses, they are too small to replicate themselves and must enter a human cell, obliged to hand the job over to their human host. For this, they target mainly cells within the respiratory and intestinal tracts of human hosts and have evolved over the centuries to persist in a form that does not usually threaten the host or virus. Unfortunately, modern standards of culture (eg, sanitary habits and lack of breastfeeding) have almost destroyed this convenient alliance, so that, in modern times clinical disease has arisen due to social change rather than to any mutation of the viruses concerned. Nowadays, enteroviruses are clinically associated with over 20 distinct syndromes. These usually arise from spill over of infected blood from the intestinal tract or by direct access to the brain via the spinal nerve tracts. These well recognised syndromes resulting from such “accidents” are characteristically inflammatory in nature and include: Polio, Polio Encephalitis, Myalgic Encephalitis (affecting the brain stem), Meningitis, Myocarditis, Pericarditis, and Degenerative Heart Muscle Disease, Pleurodynia (Bornholm Disease), Rashes on Skin or Mucous Membranes, Eye and Ear Infections, Vestibulitis (affecting balance), Gastroenteritis, Hepatitis, Pancreatitis, Juvenile Onset Diabetes, Urinary Tract Infections, Kidney Disease, Perinatal Enterovirus Disease and “cot death”. The profusion and complexity of enterovirus infections is discouraging to scholars and leads to much apathy within the medical profession and mistreatment. They cling to a “psychological” explanation instead of questioning their local microbiology department!

(3) EPIDEMIOLOGY

(The study of disease in defined populations)

Any good clinical microbiologist such as Professor Rotbart, will have spent some time on this and on working out how diseases spread and cluster into groups and how they can be defeated. Testing the drugs now being researched includes using the common cold viruses (Rhinoviruses which are also included in the Picornavirus family) to judge the effect. Many drugs, eg, Disoxaril, Enviroxime, Piradovir and Pleconaril have been tested on Rhinovirus infection and found to be effective. Research in Bulgaria has concentrated on ringing the changes by adding some of the drugs together and finding them to be synergistic (more active) or antagonistic (less active). These drugs can be used effectively to block the passage of the virus to the brain, if given early enough. Hence the wise collaboration between the clinical and commercial laboratories which provide a rapid (PCR) (Polymerase Chain Reaction) ready to read within 5 hours. These “capsid blocking” drugs*** provide a perfect fit into the minute chamber through which the live virus must pass into the cell. The dimensions are the same for all enteroviruses yet examined. Thus, nature has, by some miracle, provided us with a ready made “natural” means of cure! At the same time, vaccines have been produced, but not yet used against coxsackie B viruses. These can prevent a whole variety of enterovirus diseases, and, (using rapid PCR) we can anticipate which virus strains will be coming next year to prevent further infections in baby nurseries and in school children, in the future.

Jane Colby and I have studied over 6000 members of the UK school population from 1990 – 1995 and discovered that ME is by far the commonest cause of longterm sickness absence in pupils - while school teachers are also the commonest sufferers worldwide from ME.

(International survey in 2002 -2003), school children are the epicentre of the distribution of this disease to their friends, relatives and outside contacts. If the American multicentre placebo controlled randomised trial of PLECONARIL in neonatal disease is successful, what a chance we have to treat, stop and prevent enteroviral illness now! Please talk to your MP as soon as possible about why similar studies are not being carried out within the UK despite large amounts of money being provided!!

*** *The “Capsid” is the virus coat which has to be discarded before the virus can reproduce. “Capsid Blocking Drugs” prevent this from taking place.*

**DR. E. G. DOWSETT
47 DREWSTEIGNTON
SHOEBURYNESSESS
ESSEX SS3 8BA**

OCTOBER 2004