MEDICINE

Defeatism Hampers Multiple Sclerosis Fight

➤ THE TREATMENT of multiple sclerosis is being hampered by a defeatist attitude about the disease in the medical profession, Dr. Douglas McAlpine of the Institute of Clinical Research, Middlesex Hospital, reported in the *British Medical Journal* (March 2).

"Above all, the impression must not be left on the patient's mind that he or she is suffering from a mysterious disease about which nothing is known and for which there is no treatment," he reported.

Support for the so-called allergic theory of this disease which progressively destroys the protective covering of the nerves has been increasing in recent years. Many victims of the disease show some form of allergy, fatigue, previous infections, trauma and emotional stress, he reported.

None of these are conclusive proof that the disease is an allergic type of illness, but they are all "compatible" with that theory, Dr. McAlpine said.

One of the difficulties in treatment lies in not diagnosing the illness until four or five years after its first appearance. This could be overcome by making the public more aware of the early symptoms, but until the medical profession adopts less of a defeatist attitude about treatment it would probably not be justified, the physician reported.

This present attitude comes from the lack of a realistic approach to the problem. The fact that no known drug can alter the course of the disease is not a valid enough reason for neglecting general treatment principles, he reported.

Treatment of an early case of multiple sclerosis should be centered around the patient's constitutional and environmental background rather than on the nervous system, Dr. McAlpine believes. It should be undertaken with the same attitude as that taken towards tuberculosis.

"If this were done, I feel convinced that, in a worth-while proportion of cases, the disastrous results which we see all too often would be avoided or at least mitigated," he concluded.

Science News Letter, March 16, 1957

CONSERVATION

Conservationist Pleased With Progress in 1956

➤ A LEADING CONSERVATIONIST tallied up last year's balance sheet in the fight to protect our natural resources and proclaimed 1956 "a momentous year."

"There have been successes and failures, but the gains seem to be of more significance than the losses," Dr. Ira N. Gabrielson, president of the Wildlife Management Institute, said in the opening address of the 22nd North American Wildlife Conference in Washington.

On the credit side, Dr. Gabrielson pointed to the "good forestry and wildlife provisions" of the Soil Bank Act, crediting conservationists across the nation with putting them "there."

He said that the new Pollution Act is a much stronger law than the original legislation and that the Fish and Wildlife Service's reorganization bill was a big step forward.

On the debit side of the conservation ledger, Dr. Gabrielson listed the failure to enact the Key Deer bill, which faltered in the Senate; the failure to do anything about the Coordination Act; and the authorization in the Omnibus Bill that was finally vetoed by the President, that would have turned over to Army Engineers a drainage right-of-way through the White River Refuge, Arkansas.

Science News Letter, March 16, 1957

VIROLOGY

Eye Infections Caused By Virus Increase

➤ EYE INFECTIONS caused by herpes simplex, the virus that causes fever blisters, have increased notably since World War II in their number and severity, three physicians at the University of California Medical Center, San Francisco, report.

The infection, known as herpetic keratitis, is now the most important disease affecting the cornea, and it is a leading cause of visual loss.

Although the reasons for the rise are largely unknown, the physicians said that the larger number of cases and greater severity may be attributable in part to the advent of cortisone and its relatives.

Triggering of herpetic keratitis is sometimes a side effect of these drugs. Among 200 patients studied by the three physicians, most of the more severe infections had received steroid treatment.

The scientists found that about 10% of their patients had involvement of both eyes, whereas before the war this was a very rare occurrence.

In addition to steroids, herpetic eye infections are sometimes traceable to fever-producing infections, sunburn and other factors that often bring on the more familiar fever blisters or coldsores.

The physicians observed that, although steroids may alleviate the immediate symtoms, these drugs increase the likelihood of permanent after-effects. As other investigators do, they advise against steroid treatment of herpetic keratitis.

The infection varies widely in severity, from no permanent damage to virtual blinding. The physicians offered a new classification of the disease into three types—primary, superficial and deep keratitis. Corneal transplants are useful only in selected cases, they said.

The results are reported by Drs. Phillips Thygeson, Samuel J. Kimura and Michael J. Hogan, ophthalmologists, in the *Archives of Ophthalmology*.

Science News Letter, March 16, 1957

IN SCIEN

ASTRONOMY

Discovery of Supernova In Big Dipper Reported

➤ DISCOVERY of a possible supernova, a star that suddenly blazes forth with 100,000,000 times the sun's brilliance, is reported from Berne, Switzerland.

The spectacular object is in the constellation Ursa Major, part of which is familiarly known as the big dipper. Despite the supernova's extreme brightness, its magnitude is only 14, too faint to be seen without a fairly large telescope.

If the newly discovered object were placed at a distance where the sun would be barely visible to the unaided eye, it would appear four times as bright as the full moon.

The supernova was spotted by Prof. N. Scheurer of the Astronomical Institute of the University, Berne, Switzerland. News of its discovery was cabled by Miss J. M. Vinter-Hansen of the University Observatory, Copenhagen, Denmark, to Harvard College Observatory in Cambridge, Mass., the clearing house for astronomical information in the Western Hemisphere.

Science News Letter, March 16, 1957

MEDICINE

Drug Effective Against Mixed Types of Epilepsy

➤ A DRUG called phenaglycodol has proven effective against epileptic convulsions in persons with focal brain damage, Drs. Charles M. Gruber Jr. and Jack M. Mosier, Lilly Laboratory for Clinical Research, Indianapolis General Hospital, Indianapolis, Ind., reported in the *Proceedings of the Society for Experimental Biology and Medicine* (Feb.).

The drug's importance may lie in its usefulness against mixed types of epilepsy, the researchers reported.

Usually, drugs that are effective against grand mal seizures, those characterized by severe convulsions, are expected to increase the severity of petit mal seizures, whose major symptom is loss of consciousness, and vice versa. But phenaglycodol is effective in both petit mal and generalized seizures occurring in patients with focal brain damage, they reported.

The anticonvulsant drug lacks the chemical characteristics associated with other drugs that have the same effect. In comparison with phenobarbital larger doses are needed, but these larger doses of the new drug are tolerated as well as smaller ones of phenobarbital, the researchers found.

The drug is tradenamed Ultran and is manufactured by Eli Lilly & Co., Indianapolis, Ind.

Science News Letter, March 16, 1957

CE FIELDS

MEDICINE

Debunks Popular Ideas About Alcoholics

➤ YOU CAN BECOME an alcoholic without ever drinking alone or touching hard liquor, Dr. Jackson A. Smith of the Nebraska Psychiatric Institute, Omaha, reported in the *Journal of the American Medical Association* (March 2).

Debunking some of the popular ideas about what makes an alcoholic, Dr. Smith reported that never drinking alone or drinking only beer has nothing to do with the severity of alcoholism. One can be an alcoholic without having delirium tremens or even becoming obviously intoxicated, he said.

Dr. Smith describes an alcoholic as any person "who relies on alcohol to meet the ordinary demands of living and continues to drink excessively after alcohol has caused him marital or occupational difficulty." He is an alcoholic whether he drinks only in the evening, has never taken a drink when alone, or has not touched anything but beer for five years.

In treating alcoholics, the question is not only what or how the person drinks, but also why, he reported.

The majority of chronic alcoholics have an unusual amount of anxiety or tension that they try to control by drinking. This anxiety shows up as fear, dread, and sometimes panic. It probably springs from not being able to express anger or resentment, the psychiatrist reported.

The basic aim of psychotherapy is to encourage the alcoholic to express anger and thus prevent the build-up of tension that ends in another drinking bout. But to be successful, the treatment must be fully accepted by the patient, Dr. Smith explained.

He must personally conclude that for him drinking is impossible. Trying to stop just to humor his unduly alarmed wife, or to placate an irate boss, will not work. Nor can the alcoholic be "deceived into sobriety," Dr. Smith reported. He must realize that there can be no compromise: he must be either a teetotaler or a drunk.

Science News Letter, March 16, 1957

PATHOLOGY

Germs "Find a Home," Cause Chronic Disease

➤ ORGANISMS that "find a home" in the human body may cause the insidious, chronic pattern in certain diseases, such as undulant fever.

This has been suggested in research by John J. Holland, bacteriologist at the University of California at Los Angeles.

It has been known for some time that the brucella organism, which causes undulant fever, takes up residence within the cell. There it is protected in fortress-like security from high concentrations of antibiotics, which apparently do not penetrate the cell wall.

Mr. Holland has shown that the virulent form of brucellae remains alive within the cell for more than 30 days despite a heavy concentration of streptomycin in the tissue culture medium.

During this period there was little or no damage to the cell by rapidly multiplying bacteria. A comparison was made with typhoid bacteria, which also reproduce intracellularly. The typhoid organism caused gross damage to the cell.

The UCLA bacteriologist suggests that this compatibility of the organism and the cell may explain the capacity of certain organisms to cause insidious, chronic disease.

Science News Letter, March 16, 1957

PUBLIC HEALTH

U. S. Gives Money To Wipe Out Malaria

➤ THE U. S. GOVERNMENT presented $1,500,000 to the Pan American Sanitary Bureau, regional office of the World Health Organization, to support a continent-wide program to wipe out malaria. The program has been adopted by all the republics of the Western Hemisphere who have agreed to convert their control efforts to those of full scale eradication.

Science News Letter, March 16, 1957

ANTHROPOLOGY

Seafaring Indians on Catalina in 2000 B.C.

➤ SEAFARING Indians inhabited southern California's famed tourist resort, Catalina Island, as early as 2000 B.C.

Dr. Clement Meighan, anthropologist at the University of California at Los Angeles, says that radioactive carbon dating of Indian relics uncovered in the Little Harbor area of the island has established the site as about 4,000 years old.

Relics include primitive bone fish "hooks," quartz spear points, stone hammers for tenderizing abalone, mortars and pestles for grinding plant seeds, and shell beads. There were also large numbers of bones from dolphins, seals and other forms of marine life uncovered at the site.

"It is remarkable that these Indians had good enough boats at this early date to get to the island and to go 'deep sea fishing' for such big animals as dolphins and seals," Dr. Meighan says.

First systematic archaeological survey of the island was initiated by UCLA in 1953. Since that time a number of Indian sites have been excavated.

It was thought that the sites were much more recent than the radiocarbon dating has established.

Science News Letter, March 16, 1957

PHYSIOLOGY

Brain Extract Blocks Madness-Inducing Drug

➤ A BEEF BRAIN EXTRACT can block the action of LSD-25, a drug that brings on the symptoms of madness in man, scientists at the Biological Laboratory, Cold Spring Harbor, and the State Hospital, Central Islip, New York, reported in *Science* (March 1).

In Siamese fighting fish, LSD-25, short for lysergic acid diethylamide, brought on a strange reaction. Fifteen minutes after the madness-inducing chemical was added to their water, all the fish were found in an unusual nose up-tail down position. They stayed that way through the experiment.

But when a small amount of the beef brain extract was also added to the water, the effect of the LSD-25 was blocked and only a few fish showed the strange behavior.

The brain extract was known to contain serotonin, a powerful body chemical that can stimulate muscle and raise blood pressure. It could have explained the blocking action, but the researchers found that serotonin itself could not stop the reaction and the fish were still thrown into the nose up-tail down position by the LSD-25.

What the unknown blocking substance is, or how it works, has not been discovered, they reported.

Future experiments are being designed to see if the brain extract will have the same blocking effect in humans and keep the LSD-25 from creating the symptoms of insanity. Knowledge of these biological reactions may lead to a better understanding of the chemical changes that take place in mental illness.

The research was reported by Drs. H. A. Abramson, B. Sklarofsky, M. O. Baron, and H. H. Gettner.

Science News Letter, March 16, 1957

WILDLIFE

Pacific Walrus in Danger Of Being Wiped Out

➤ INTERNATIONAL collaboration and more stringent controls on Eskimo hunting are needed to save the Pacific walrus, Francis H. Fay of the U. S. Public Health Service, Anchorage, Alaska, told the 22nd North American Wildlife Conference in Washington.

At the time the Danish explorer Bering discovered the Bering Strait, he said, the Pacific walrus population occupied almost three times the range it does today.

In spite of protective legislation, he pointed out, there are about only 40,000 walruses left, and they are diminishing in numbers.

The conservationist blamed commercial exploitation and native hunting practices in the mid-1800's for halving the population.

Science News Letter, March 16, 1957