MEDICINE

Man Has Two Brains

The brain's two hemispheres may be very similar in function and their relationship may contribute to mental disorder. Damage to one hemisphere may cause strange behavior.

➤ EVERY MAN has two brains—one right and one left.

Their respective roles and whether there is a relationship that may contribute to mental disorders is the subject of a research project being carried out by Drs. Bernice M. Wenzel and Robert D. Tschirgi of the University of California Medical School, Los Angeles.

The two hemispheres of the human brain are not only extremely similar in structure, the investigators point out, but because of extensive inter-connection they may be very similar in function. This is probably why we have difficulty at times discriminating left and right.

One approach to the problem has been to remove one brain hemisphere from experimental animals at birth and to compare their subsequent behavior and learning ability to litter mates whose brains were left intact. So far the animals have demonstrated no significant differences in behavior or learning ability.

It has been demonstrated elsewhere that the same procedure in adult animals resulted in marked differences. Animals with only one hemisphere, for example, could not walk a straight line but walked in circles.

Human patients who have suffered severe damage to one side of the brain may demonstrate bizarre behavior. In some cases, for instance, they tend to lose awareness of the opposite side of their body, grooming only one side of the body and letting the other remain unkempt. They are unable to touch the other side of the body, as if there were a barrier.

All this suggests that complex interrelationships between the two hemispheres are established in the learning process. Disruption of these interrelationships or imbalances in their function may be related to mental disorders, it has been thought.

The research continues in search of clues as to how the roles of the "two" brains may be involved in normal and abnormal behavior.

The project is being supported by the National Association for Mental Health.

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MEDICINE

Antibiotics Overused

➤ A PROMINENT PHYSICIAN, Dr. Maxwell Finland, professor at Harvard Medical School and physician-in-chief at Boston City Hospital, denounced the indiscriminate use of antibiotic drugs for minor ailments such as common colds at a hearing before the Kefauver Antitrust and Monopoly Subcommittee currently investigating high drug prices set by the pharmaceutical industry.

Dr. Finland said the unjustifiable use of the powerful new drugs causes an imbalance in the different types of bacteria to which the human body commonly is host.

The result, he said, is that antibiotic-resistant bacteria, not formerly the cause of serious infection, has become a new threat to health.

He blamed the misuse and overuse of antibiotics on the fact that the medical profession often depends for its information about drugs and their administration on the pharmaceutical company representatives. There is no objective body to evaluate the antibiotics, and doctors do not have enough time to study the facts for themselves, he said.

Authoritative reports "in respectable medical journals" often do not appear until the drug has been on the market and in use for quite some time.

He asked that a study section be set up by the National Institutes of Health to evaluate drugs and advise on their proper use. "Under such auspices, the indorsement of inferior products that are not in the best interest of the public is much less likely to occur than when the support for testing the product is furnished by the individual producer."

Dr. Finland was questioned by the subcommittee on chloramphenicol, produced exclusively by Parke Davis and Company, Detroit, under the trade name Chloromycetin, which can cause serious reactions in the human blood structure.

He said that administration of this drug is best done with prior and concurrent blood tests.

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MEDICINE

Blue Iodine Found Powerful Germ Killer

➤ THE BACTERICIDAL qualities of blue iodine, iodine in combination with polyvinyl alcohol, are many times higher than those of common iodine, according to the Soviet journal Science and Life, Vol. 27, No. 3, 1960.

In experiments with the blue iodine at a monkey nursery in Sukhum in the USSR, blue iodine was used after dilution to one in 80,000 parts. The experiments showed that a diluted blue iodine can successfully treat and cure gastric and intestinal diseases.

Pure iodine is a dark gray crystalline substance with a metallic luster. To the non-chemist, it is familiar as a brown liquid in an alcoholic solution. When heated to moderate temperatures, iodine sublimes, forming a violet vapor that rapidly condenses to crystals on a cold surface. When added to a solution of starch, iodine produces an intense blue color. This reaction is frequently used as a test for detecting the presence of iodine.

Polyvinyl alcohol is a polymer prepared from polyvinyl acetate by the replacement of acetate groups with hydroxyl groups.

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MEDICINE

Electricity Revives Paralyzed Leg Muscles

➤ PARALYZED LEG MUSCLES have been made to function again by an experimental electrical device that shocks the muscles and makes them draw up.

These experiments, reported in Washington, D. C., by the Veterans Administration, are being made on several patients at the VA hospital in Hines, Ill. The patients carry a small transistor electrical stimulator at their belts.

The stimulator sends electrical pulses to the thigh and the peroneal nerve, thus turning a dragging foot into a sharply lifted one. When the foot is on the floor, a switch in the patient's shoe turns the electricity off.

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ELECTROTHERAPY—A Hines, Ill., VA Hospital patient feels his paralyzed leg come to life as he walks with aid of electrical stimulation. The wire connects with a switch that shuts off current when heel is off the floor.