medical sciences

PARKINSON'S DISEASE

Combination drugs with L-dopa

Reduction of the dosage of the promising drug L-dopa is possible against shaking palsy, or Parkinson's disease, if it is combined with another experimental drug called RO-4-4602, a Montreal physician told the American Academy of Neurology April meeting in Washington, D.C.

Dr. Andre Barbeau, who has been working for eight years on L-dopa research at the University of Montreal said the new drug was developed in Switzerland at the Hoffman-LaRoche Laboratories. The drug permits a higher concentration of L-dopa to reach the brain, limiting its action on other body tissues.

Dr. George C. Cotzias of Brookhaven National Laboratory, who has been working on L-dopa under an Atomic Energy Commission grant, reported work done in Chile, using the drug against nonprogressive muscular dystonia. Several young women in Santiago were affected with dystonia after chronic manganese poisoning. They had been unable to walk for several years, but were helped by slowly increased oral doses of L-dopa.

Dr. Cotzias believes personally that the drug will be ready for approved general use in less than a year and that it may be of value in a number of other neurological diseases besides Parkinson's.

WILSON'S DISEASE

Genetic counseling needed

An inherited malady called Wilson's disease is sometimes caused by the marriage of cousins, Dr. Sean O'Reilly of San Francisco General Hospital said at the meeting of the American Academy of Neurology in Washington, D.C. It causes brain degeneration, with tremor and rigidity, and cirrhosis of the liver. Persons with the disease should be advised not to marry.

"Many doctors miss the diagnosis," he pointed out, "but the eyes should be examined for what is called the Kayser-Fleischer ring, a brownish circular formation at the base of the cornea."

Since the disease is caused by the retention of copper, a low copper diet is advised. Shellfish and chocolate are high in copper and should be taboo.

Penicillamine is used in treatment as it promotes urinary excretion of copper and prevents it from accumulating. Untreated, the disease is fatal.

Dr. O'Reilly says he has been doing his research under grants from the National Institutes of Health but feared that the Administration cuts would put a stop to the work. San Francisco Hospital is affiliated with the University of California Medical School.

ANTIBIOTIC

Warning ordered for novobiocin

A powerful antibiotic called novobiocin, used for treatment of staphylococcic and urinary tract infections, must be labeled more stringently, the Food and Drug Administration has ordered.

The Upjohn Company of Kalamazoo, Mich., which developed the drug under the trade name Albamycin, says it is submitting comments promptly under the 30-day ruling provided by FDA for new labeling proposals.

A Merck & Company spokesman says its version of the antibiotic, called Cathomycin, had been discontinued last year.

In the Physicians' Desk Reference, Upjohn already calls attention to possible side effects, including liver and blood disorders, and warns against giving Albamycin to premature or newborn babies.

The FDA has demanded sterner warnings as a result of the review of more than 3,000 drugs by the National Academy of Sciences-National Research Council.

DIAGNOSIS

A 20-second lung test

A team of St. Louis researchers reports a computerized procedure that can spot abnormal changes at 64 different sites on the lungs in 20 seconds.

A simple one-breath-in, one-breath-out test can spot lung cancer and emphysema earlier and faster than a conventional chest X-ray, although it is not meant to replace chest X-ray.

Dr. James Potchen, associate professor of radiology at Washington University, uses the test as a screening procedure on patients suspected of having a lung disorder.

He says the procedure is similar to fluoroscopy, except that it is quantitative. It utilizes a standard scintillation camera, a source of radiation and computers.

He says the whole setup costs about as much as a room for angiography, an X-ray picture of blood vessels. Its importance is that it can measure time-dependent changes in regional density.

The camera's picture of the lung is transformed by the computer into a pattern of small dots. The lines made by these dots look like the topography of mountainous areas on maps.

INSTRUMENTS

Transducer tests blood pressure

A tiny new device, barely visible to the eye, has been used to measure the blood pressure of animals and is expected to be tried on people at Peter Bent Brigham Hospital in Boston. The extremely small size of the transducer has made tests possible in blood vessels hitherto inaccessible by conventional devices.

The unit grew out of an extensive research program conducted by Dr. Wilhelm Rindner, chief of the device research branch of the National Aeronautics and Space Administration's program of basic research on electronic materials for use in space.

The blood pressure transducer is only about two one-hundredths of an inch thick, and consumes less than 50 millionths of one watt of electrical power.

Dr. Bernard Lown and his co-workers at the Harvard School of Public Health inserted the transducer through anesthetized animals' arteries into the heart, measuring the ventricular pressure.

A similar device has been developed at NASA's Ames Research Laboratory at Moffett Field, Calif., and has been used successfully on heart patients at the Stanford University Medical Center.