MEDICINE

Recent Heart Research

Second World Congress of Cardiology told about latest advances in the battle against heart disease, the number one killer in the United States. Interlingua used for abstracts.

➤ A BLOOD test for heart damage that may save patients weeks and months of unnecessary invalidism was announced at the Second World Congress of Cardiology meeting in Washington.

The test was developed by Drs. John S. LaDue, Felix Wroblewski and Arthur Karnen at the Sloan-Kettering Institute, research unit of Memorial Center for Cancer and Allied Diseases. New York. It is a by-product of cancer investigations.

The test will be used to determine whether the patient has heart damage due to a heart attack of the kind doctors call coronary thrombosis, meaning a block in one of the blood vessels nourishing the heart muscle.

Usual diagnostic methods for determining this are sometimes inconclusive and, in such borderline cases, patients now may be put to bed for weeks or until the doctor is sure their hearts are not damaged. The new test will avoid this.

It is made on a sample of blood and can be performed in the doctor's office or the patient's home. The test depends on the amount of an enzyme, glutamic oxaloacetic transaminase, found in the blood. Normally, this enzyme is found in highest concentration in heart muscle. When the heart muscle is damaged, it is liberated into the blood stream.

Tests on 50 patients with heart damage showed two to 25 times the normal amount of the enzyme in the blood within 12 to 24 hours after the heart attack. Every patient tested who was known to have heart damage (myocardial infarction) showed above normal amounts of the enzyme in his blood.

Patients with arteriosclerotic and other types of chronic heart disease, however, all had normal amounts of the enzyme in their blood.

Pressure Test Needed

Most needed now for treating high blood pressure is a test for telling which basic mechanism is producing the high pressure in each patient, Dr. Irvine H. Page of the Cleveland Clinic, Cleveland, Ohio, said at the Congress.

Doctors now have a score of drugs that reduce blood pressure, but they do this by acting on different mechanisms in the body. The big problem is to find the right drug for each patient.

For example, reserpine and other drugs from the snakelike root of the Indian plant, *Rauwolfia,* act on the brain and central nervous system. The quieting or tranquilizing effect of these compounds seems to be what some patients need to reduce their high blood pressures.

Apresoline, or hydralazine, acts on another part of the nervous system and also inactivates a pressure-raising substance in the blood.

Acting to block sympathetic nervous system impulses at the ganglia, well back of the blood vessels, are still other chemicals: hexamethonium and a newer one, pentapyrrolidinium.

Many doctors at the Congress are enthusiastic about pentapyrrolidinium, known also as M. and B. 2050 and Ansolysen. One of its advantages is that it can be taken by mouth and another is that its effect lasts longer.

All the blood-pressure-reducing drugs seem to have some unpleasant side effects. These range from drowsiness to impotence and even production of a disease like arthritis. Doctors prescribing them, consequently, must find not only the right drug for the particular patient, but also the delicate balance in size of dose between that needed to reduce pressure and that which can cause unpleasant or serious side effects.

Interlingua Used

First major use of the international language, Interlingua, in an international congress took place at the Second World Congress of Cardiology.

Each abstract of the many papers being presented during the meeting was printed in the easily-read "standard average European" Interlingua as well as in the language of the speaker.

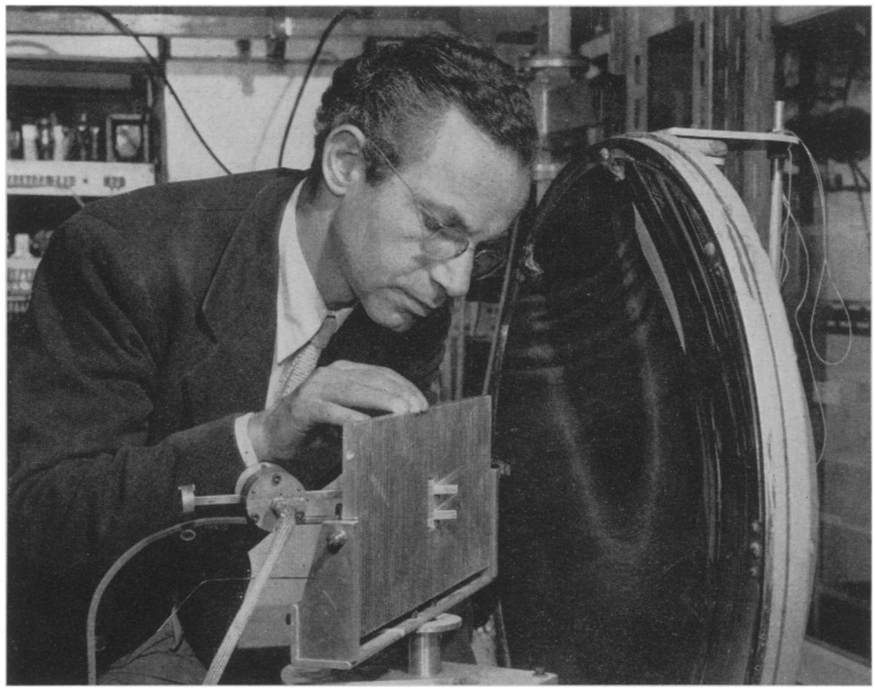
"Interlingua has been developed primarily upon the basic words of the romance languages," Dr. L. Whittington Gorham, of the Congress, explained. "It is hoped that our efforts to facilitate understanding will make the barrier of languages less formidable than it otherwise would be."

Potent Heart Poison

Discovery of a powerful heart poison in a chemical from the streptococcus germ was reported by Drs. Aaron Kellner and Theodore Robertson of New York.

This poison may be the cause of the heart damage following rheumatic fever attacks, the New York doctors believe.

Doctors have known since 1934 that an attack of rheumatic fever almost always was



MILLIMETER WAVES—Scientists at Stanford University, Calif., have now filled a gap in the electromagnetic spectrum by generating millimeter waves about six-thousandths of an inch long. Here Dr. Hans Motz of the Microwave Laboratory adjusts the echelette spectrometer, a key part of the millimeter wave generator he invented. Other components are an accelerator and an "undulator."