

MEDICINE

Hope for Diabetes Cure

Insulin, discovered almost a half century ago, still remains the best treatment for diabetes, and even pills by mouth need insulin to make them effective.

➤ HOPE for the prevention and eventual cure of diabetes was given at the National Institutes of Health, Bethesda, Md., where specialists met to discuss techniques that should be used in population studies of the disease.

An estimated 26 million people throughout the world have diabetes and probably an almost equal number do not know they have it.

More Japanese men than women have the disease, Dr. Masahisa Wada of Osaka City University Medical School, told SCIENCE SERVICE. Studies in the outlying villages near Osaka have shown this to be true, but further research is needed to find out why. "Japanese men get fatter than women," Dr. Wada said, "but this is not the only reason people get diabetes."

Another study in West Africa has shown that one out of three persons, mainly immigrants from East Pakistan, have diabetes, and in these cases family tendencies, or genetics, could be the cause.

Insulin, discovered more than 40 years ago, still remains the best treatment, Dr. Howard F. Root, president of the Diabetes Foundation, Boston, said in an interview.

"No pills by mouth are as effective as insulin," he added. "In fact, insulin is needed with them to make them work."

One of the greatest hopes for potential diabetics is the fact that there is a period before actual diabetic symptoms show up. Mild or early cases can be kept from getting worse.

The untreated diabetic cannot use sugars and starches properly and since the sugar content of his blood is high, the kidneys have to get rid of the excess sugar, causing excessive urination.

The diabetic is always hungry because he cannot get full nourishment from carbohydrates. He is also thirsty most of the time if he is untreated.

Other symptoms may be tiring easily, loss of weight, itching and slow-healing infections.

Some cases are found when a patient has an unusual siege of boils, or has cuts and bruises that take a long time to heal.

One of the usual tests for diabetes is an analysis of the urine. If it is found that sugar is being excreted it is a good sign that the patient is diabetic and he is usually treated with insulin until other conclusive tests are made. The sugar content of the blood also should be tested, and in suspicious cases, the "glucose-tolerance" test, which measures a person's ability to handle sugar normally, is given.

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SURGERY

New Surgical Advances

➤ HIGHLIGHTS of surgical accomplishments reported at the 50th annual meeting of the American College of Surgeons were:

An artificial heart, a plastic auxiliary left ventricle, has successfully functioned in 72 dogs, and a similar device soon will be tried in humans, a team at Maimonides Hospital, Brooklyn, N.Y., said.

The small plastic, air-powered heart helper can be permanently implanted between the ascending and descending aorta. Dr. Yukihiko Nose and Adrian Kantrowitz reported the device which reduces the work of the heart 50%.

When perfected it should be useful in treating chronic blood vessel insufficiency in human heart muscle.

An improved plastic mold as a mouth guard for football players was reported by Dr. Nick J. Accardo, Tulane University associate professor of orthopedics who was once a football player at Tulane.

The guard was made by Dr. Fred Wolf Jr., a New Orleans dentist who fits each player. Mouthpieces made of a common pattern for football players do not fit and should not be worn, Dr. Accardo said.

A tiny implantable pacemaker suitable for

babies born with slow hearts or for infants who have heart block following surgery on their hearts was reported ready for testing. Dr. Peter B. Mansfield, surgeon with the U.S. Public Health Service, has been working on the pacemaker for five years at the Children's Hospital, Boston, where testing will be continued.

Hope for women who cannot have children is seen in a University of Mississippi report revealing that the uterus of dogs has been successfully transplanted.

The surviving dogs will now be given an opportunity to become pregnant to test the effects of interrupting the nerves and blood vessels.

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Sewn Silk Sutures Infect

➤ ELIMINATION of sewn silk sutures for closing wounds was advised by a Canadian surgeon because of infection traced to the method in animal experiments.

The use of sterile tape produced no infection when used on the backs of 12 pigs, but stitch abscesses occurred in 16.7% of all sutured incisions.

Dr. M. T. F. Carpendale, of the Surgical-Medical Institute, University of Alberta, Edmonton, Canada, told the meeting of the American College of Surgeons in Chicago that the incision itself did not cause the wound infection.

He inoculated wounds with one million to two million germs, but if they were closed by tape no infection occurred.

The backs of the pigs were given a standard pre-operative preparation of the skin, including shaving, soaping and application of two coats of iodine. Sterile gloves, masks and caps were used by the surgeons during experimentation.

Another discussion on sutures, by Dr. Luis L. Gonzalez, of the University of Cincinnati College of Medicine, Cincinnati, pointed out that microabscesses surrounded the silk suture material in experimental work with the closure of animal arteries.

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Clip Prevents Lung Clots

➤ A WAY to prevent pulmonary embolism, using a clip like a clothespin, was demonstrated by Dr. Robert M. Miles of the University of Tennessee College of Medicine, Memphis.

The clip encircles the renal vein of the inferior vena cava, Dr. Miles told the meeting of the American College of Surgeons in Chicago.

Only one of 11 patients has died of blood clots in the lung following use of the plastic clip, which is about the size of a large safety pin.

The vena cava is a large blood vessel that returns impure blood to the lung by way of the heart.

Earlier experiments with dogs were tried, using an ordinary metal button clip such as is used to fasten buttons without sewing thread.

The clip converts the blood vessel into a series of channels small enough to trap clots that would be fatal if they got into the lungs, Dr. Miles said. The patients had either been given anticoagulants without effect, or they had conditions not suitable for this treatment.

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Anti-Pregnancy Pill Safe

➤ DR. JOHN ROCK, controversial Roman Catholic gynecologist and professor at Harvard University Medical School, said that he believes many Catholic physicians and surgeons agree with him that it is morally sound to control pregnancy.

The physical dangers to a woman who takes a birth control pill have been built up by misguided moralists and others whose fears are unfounded, Dr. Rock said in Chicago.

Mistaken are the fears of cancer and thrombophlebitis among women who take birth control pills, he said.

Dr. Rock warned against pills' being taken by men instead of women, however, since the sexuality of men has suffered in most of such cases.

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