

VETERINARY MEDICINE

Polio Clues from Pigs

Striking similarity has been found between the disease which is attacking pigs in Europe and human polio. This may aid research on virus.

► **NEW CLUES** for research on infantile paralysis may come from a disease which is taking a high toll of pigs in Europe.

The virus that causes porcine virus encephalomyelitis in swine may be a relative of the human polio virus. This is suggested by Dr. Martin M. Kaplan, veterinary consultant to the Food and Agriculture Organization of the United Nations, and Dr. David R. Meranze of Mt. Sinai Hospital, Philadelphia, in a report to the journal, *VETERINARY MEDICINE* (Aug.).

Striking similarity between the two diseases—in the way they strike the body and affect the community or herd—was noted by Dr. Kaplan last year in Czechoslovakia where he studied the swine scourge.

Both diseases attack the central nervous system. Slight infection develops an immunity. Transmission is probably through the digestive tract, and also through the nasal route in the pig disease. The viruses are rarely found in the blood, and the

early stages of both diseases are marked by hyper-irritability, with paralysis most commonly involving the lower limbs.

The swine virus encephalomyelitis creates inflammation of the brain and spinal cord. Thus far, the disease has not been detected in this country, but it is considered a major threat to European pork supplies. The disease spread rapidly on the European continent during World War II.

European scientists, the American report said, have noticed the parallel between the human disease and the pig infection. But no human cases of polio have been associated with the disease in swine.

Virus of one other disease, mouse poliomyelitis, may also come from the same parent strain, it was indicated.

Drs. Kaplan and Meranze urged that scientists in this country study the swine disease both because of the possibility that it might reach this country and because of the similarity to polio virus.

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AGRICULTURE

Vegetables Kept Fresh

► **FRESH VEGETABLES** that stay fresh, even after lying in the open for more than a week, are the newest prospect held forth by U. S. Department of Agriculture research on plant growth control substances. Results of preliminary experiments pointing in this direction were disclosed when the National Advisory Committee on the Research and Marketing Act visited the great experiment station at Beltsville, Md., near Washington.

It all started with some crippled bean plants, bent over into permanent humps when a growth-control chemical related to 2,4-D was applied to one of the leaves. Examination showed that the lopsided growth was due to the rapid enlargement of cells on one side of the stem. The cells stubbornly held onto the water they had quickly taken up, making the deformation permanent.

Dr. John W. Mitchell, in charge of the research, figured that if the chemical would make stem cells hang onto water, it might do the same for the green bean pods, thereby postponing their wilting.

A plot of bean plants was therefore sprayed with a dilute solution of the compound, shortly before the beans were ready to be picked. After they were picked, some

of the pods were left lying in the open, in the warm atmosphere of the greenhouse. Along with them were left an equal number of similar pods from untreated plants. After nine days the beans from the sprayed plants were still plump and fresh-looking, while those from the unsprayed control plants were as wilted and weary-looking as you would expect nine-day-old green beans to be.

The method is not ready for recommendation to truck gardeners, Dr. Mitchell stated. Further work must be carried on, to determine the best chemicals and the best concentrations to use, as well as to learn possible applications to green peppers, tomatoes, peas and other vegetables that might be benefited by a wilt-prevention treatment.

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BIOCHEMISTRY

Streptomycin Checks Plant-Cell Growths

► **STREPTOMYCIN**, killer of many germs causing human ills, prevents the kind of plant tumor known as crown gall. This is not because it is specific against the formation of gall tissue but because it has a

tendency to check any kind of plant-cell growth, in the opinion of Dr. R. S. de Ropp of the New York Botanical Garden.

Dr. de Ropp found that when he treated with streptomycin pieces of carrot inoculated with crown-gall germs within a couple of days after inoculation, the galls failed to develop. But the germ-killer also prevented the development of roots, whose growth had been started with the growth-promoting hormone, indole acetic acid.

He reached the conclusion, therefore, that "It seems more probable that streptomycin is a general inhibitor of the growth of embryonic plant tissue than a specific inhibitor of tumor tissue. Its effect on tumor formation is probably due to its action on the bacterial inciting agent."

Dr. de Ropp described his experiments in the British scientific journal, *NATURE* (Sept. 18).

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PSYCHOLOGY

"Planned-For" Child Is Not Always Happy

► **A CHILD** that is "planned-for" by its parents is not necessarily happy and secure.

Psychologists have realized that an "unwanted" child starts life under a handicap. But planned-for children have their own problems too, Dr. Sophie Schroeder Sloman of the Institute for Juvenile Research in Chicago found.

One out of eight of the problem children sent to that clinic had been definitely planned for, the psychologist discovered, a total of 62 in all. And some were so unhappy that they had actually threatened suicide.

Many of these children had been deliberately brought into the world in the hope of saving the wreck of an unhappy marriage. It didn't work and when the baby could not bring peace to the parents they didn't want him any more. The old-fashioned remedy for marital difficulties, "a little one, to give a sense of responsibility and bring the parents closer together," was unsuccessful in every one of these cases. Five had ended in divorce and all of the others were still "scrapping." Four of the mothers said that the child had only made a bad situation worse.

Some of the mothers expect nothing but perfect behavior from the children for whom they have so carefully planned. This produced another group of problem children.

Children who disappointed their parents by not being of the hoped-for sex made up a third group.

There were three times as many boys as girls among the patients. Girls are more likely to take refuge in submission and neurotic behavior while boys "act out" their troubles, suggested Dr. Sloman in her report to the *AMERICAN JOURNAL OF ORTHOPSYCHIATRY* (July).

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