

MEDICINE

Age-Old Disease Cause

► THE CAUSE of a disease as old as the "Father of Medicine," Hippocrates, himself has been discovered.

The disease, lathyrism, causes marked and widespread malformation of bones in humans and domestic animals with consequent deformity. Its cause is a chemical in common sweet pea seeds.

Discovery of the chemical, its isolation and synthesis, and steps toward development of an antidote to it were announced by University of Wisconsin scientists at the meeting of the Federation of American Societies for Experimental Biology in Atlantic City, N. J.

If an antidote in a close chemical relative can be found, it might prove useful also in other human diseases of bones, joints and connective tissues, it was pointed out.

The disease, lathyrism, has long attacked people and livestock in India, North Africa and much of the Mediterranean region, where the common flowering sweet pea is used as food in emergencies.

Horses and other livestock in the United States may be in danger of this disease be-

cause of the recent introduction of two other kinds of sweet pea as a winter cover crop in the Gulf States.

Other reports made at the meeting included:

Vitamin B-6, or pyridoxine, prevents toxic symptoms in tuberculosis patients getting isoniazid—Dr. Richard W. Vilter, University of Cincinnati.

Sleeping pill poisoning victims may have normal breathing restored by a drug called Nalorphine, previously found valuable to restore breathing in morphine poisoning victims—Drs. Julius Belford and Frederick F. Kao, State University of New York College of Medicine at New York City, Brooklyn, N. Y.

Dangerous twitchings of heart ventricle muscles, called fibrillation, can be produced in rabbits by disturbing the balance of calcium to potassium, suggesting new leads to handling fibrillation in humans—Dr. Leonard Grumbach and John W. Howard, Sterling-Winthrop Research Institute, Rensselaer, N. Y.

Science News Letter, April 24, 1954

MEDICINE

Human Cancer Test

► A HUMAN volunteer is having possible cancer-causing chemicals painted on his back. This is being done in the hope of getting more facts to clear the smoke over the cigarette as a possible cancer cause.

Results of the tests, which are still under way, were reported at the meeting of the American Association for Cancer Research in Atlantic City, N. J.

Cigarette smoke condensate, or tar, applied at 50% concentration in acetone, caused slight enlargement of the nuclear mass in the nuclei of cells that had been painted. This change was, however, no greater than that after a 50% solution of an ordinary irritant, turpentine oil.

The same kind of change in size of nuclear mass followed four consecutive days of painting the human volunteer's back with an oil known to cause cancer in mice, rabbits and monkeys, but not in rats or guinea pigs.

The cigarette smoke tar when put on the skin of mice caused loss of hair in 10 days, suppression of the fat glands and, within four days, enlargement of the nuclear mass in the cell nuclei.

These changes are known to follow applications of certain pure chemical cancer causers.

These early skin changes are believed to give a "rapid screening for tracing the yet unknown carcinogenic (cancer-causing) material in cigarette smoke condensates."

Seven extracts, or fractions, from cigarette tars have been tested in this way on mouse

skin and positive results obtained with one. The tests, which are continuing, were reported by scientists of New York University Postgraduate Medical School and Memorial Hospital, New York.

The Tobacco Industry Research Committee issued a collection of statements from various cancer workers who challenge the view that the rise in lung cancer coming at the same period as an increase in cigarette smoking means smoking is a cause of lung cancer.

The committee also announced that it is developing a program of research grants for further investigation of the subject.

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METEOROLOGY

Tornado Warnings Mean Be Alert

► TORNADO WARNINGS issued by the Weather Bureau are just that—warnings. They mean that conditions are right for spawning tornadoes.

They do not mean that you should run for cover immediately, just be on the alert for the stormy thunderclouds where twisters are found.

Look for a spinning, funnel-shaped cloud extending toward the earth from the base of the cloud. If there are no thunderstorms on any horizon, then the tornado is not a menace for you or your area at that time.

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