MEDICINE

Battles Asian Disease

THE AMERICAN-BORN King of Thailand, recently in Washington, D. C., on a state visit, has impressed officials as one of Asia's most able leaders in the area's fight against polio, cholera and leprosy.

Grandson of the King of old Siam who first introduced Western ideas into the country, His Majesty King Bhumibol Adulyadej, 33, is an ardent advocate of public health and medical research.

His active interest in these areas reflects the influence of his late father, Prince Mahidol, who graduated from Harvard Medical School with a degree in public health and did much to advance the health, education and welfare of his people.

Last year, when Thailand suffered a serious epidemic of cholera, King Bhumibol organized and personally directed a mobile unit for the injection of anti-cholera vaccine. By being the first to be inoculated, he set an example to his people who are fearful of hypodermic injections.

The United States has joined with Thailand in a cooperative research program on cholera that has yielded treatment procedures to greatly reduce the death rate from the disease. Although 80% of the cholera victims in other southeast Asian countries die, Thailand had cut this down to 20%. Now, with American help and cooperation, the death rate has been cut to five percent.

The U. S. cholera advisory group that visited Thailand was headed by Dr. Joseph Smadel of NIH who told SCIENCE SERVICE, "I was greatly impressed with both his knowledge and interest in medicine and its role in world affairs as well as with his extremely cordial manner."

Others who met with the King noted an understanding and familiarity with medical detail that underscored his thorough knowledge of his country's health problems.

King Bhumibol has set up a cholera laboratory in Bangkok. He has established a polio fund for the rehabilitation of polio victims crippled during the polio epidemic in 1952 and 1953 in Thailand.

Working with the World Health Organization, Thailand's Ministry of Public Health set up a 12-year plan for the ultimate control of leprosy. The King contributed his own funds to the support of this program and invited public subscription with the result that the 12-year program was accomplished in eight years.

King Bhumibol has provided the Thai Red Cross with a motor boat medical unit in order to more easily bring relief to those of his people who live along the canal and river areas. His wife, Her Majesty Queen Sirikit, is president of the Thai Red Cross and for the past year administered its program.

Science News Letter, July 9, 1960

MEDICINE

Spontaneous Abortion

A PREVIOUSLY suspected cause of spontaneous abortion has been proved, and fortunately, doctors know how to deal with it.

The cause is genital listeriosis, a chronic infection of the genital organs of apparently healthy women by microorganisms that are continuously excreted from the uterine cervix.

The microorganisms, bacteria of the genus Listeria, are not newcomers. They were isolated from animals in 1926 and have since been linked with human diseases such as meningitis, infectious mononucleosis, pneumonia and endocarditis—inflammation of the heart lining.

A research team at Hadassah Municipal Hospital in Tel Aviv, Israel, found Listeria infections in 25 of 34 women who had aborted repeatedly.

In three of the 25, diagnosis was not made until the second three-month period of pregnancy and medication with penicillin and sulfa drugs failed to prevent abortion. In another eight, treatment has prevented abortion and the pregnancies are continuing at this time.

The rest of the 25 are not now pregnant but are being treated to insure safety in future pregnancies. Some of the women had had as many as six spontaneous abortions and have had genital listeriosis for as long as 14 years.

Genital listeriosis causes little discomfort that would indicate its presence. Only one of the 25 infected patients complained of vaginal discharge and itching, and there was a second microorganism involved in this case.

The research is reported in The Lancet, 1:1273, 1960, by Drs. R. Toaff, N. Krochik, M. Rabinovitz and the late Dr. F. Rappaport.

Science News Letter, July 9, 1960

MEDICINE

Chicken Bones Aid Study Of Human Bone Diseases

A STUDY of chicken bones is giving scientists a better understanding of human bone disorders — especially osteoporosis (porous bones), which is on the increase among the nation's elderly.

Dr. Marshall R. Urist and Nance Marie Deutsch of the University of California Medical School, Los Angeles, reported the following observations:

1. White leghorn hens, bred for heavy egg production, develop osteoporosis spontaneously. This provides medical scientists with an experimental animal with which to test various hormones and other substances under investigation for treatment of the bone disorder.

2. There is evidence of a relation between excessive secretion of the female hormone, estrogen, which is associated with heavy egg production, and osteoporosis.

3. ACTH administered to mildly osteoporotic hens leads to severe osteoporosis. But roosters do not develop the disorder even when ACTH is administered in large doses. This suggests an anti-osteoporosis factor that protects the roosters against the disorder. The contributory role of ACTH is not understood but it is thought the hormone is not a direct cause.

Fifteen percent of otherwise healthy women and five percent of men develop spontaneous fractures as a result of osteoporosis, Dr. Urist points out. This three to one ratio of women over men further suggests an estrogen-osteoporosis relationship.

The fact that some elderly patients do not develop the disorder even under ACTH therapy for arthritis or other diseases is also considered evidence of an osteoporosis factor.

The UCLA researchers are initiating a Public-Health-Service-supported project designed to isolate and identify the substance. This would be a major step toward control and prevention of osteoporosis fractures of the hip and spine.

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PSYCHIATRY

Tranquilizers Give Jitters to Some

IF A PATIENT becomes more jittery and anxious after taking tranquilizers, the drug may have worked too well and on the wrong system.

In a study of 4,000 patients taking tranquilizers, Dr. Frank J. Ayd Jr., chief of psychiatry at Franklin Square Hospital in Baltimore, Md., found 500 patients with post-treatment symptoms ranging from muscular weakness and anxiety to labored breathing and grotesque body contortions. In some cases symptoms were wrongly diagnosed as seizures, tetanus, meningitis, encephalitis and polio, and resulted in emergency hospitalization, spinal punctures, antibiotic therapy and even tracheotomies.

Most of the blame fell to the phenothiazine group of tranquilizers, Dr. Ayd reports in Psychosomatics, Journal of the Academy of Psychosomatic Medicine. These drugs distort or interfere with normal muscular activities by disrupting the extrapyramidal system, which coordinates movement.

Although such neurologic symptoms may occur at any age, the chances are greater as age increases; 70% of the bad responses were in patients over 50. Akathisia (jitters and anxiety) and Parkinson-like rigidity appeared three times as often in women as in men, while dystonia (stammering, facial grimacing, labored breathing and involuntary muscle movements) occured twice as often in men.

Extrapyramidal reactions can be controlled by giving Akineton, a new drug developed for treatment of Parkinson's disease, Dr. Ayd reports.

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