

ENDOCRINOLOGY

Hormone Rescues Hopeless Victims of Addison's Disease

Ninety Patients Saved From Death by Substance Thought To Have Effect Similar to That of Insulin on Diabetes

DR. LEONARD G. ROWNTREE has reported before a staff meeting of the Mayo Clinic at Rochester, Minn., his experience in the treatment of Addison's disease with a substance which Drs. W. W. Swingle and J. J. Pfiffner, of Princeton University, have isolated from the suprarenal gland. The substance is not yet on the market. It is being produced in small quantities, in a scientific way, by Drs. Swingle and Pfiffner and Drs. Rowntree and C. H. Greene are investigating its value in treatment.

Years will elapse before its final value will be known, but its immediate effects in the crises of Addison's disease have been dramatic.

To get the significance of this work, a little of the background is necessary. In 1849, Thomas Addison, an English physician, pointed out the relation between disease of the suprarenal glands and a group of symptoms that marked a comparatively rare condition. This condition came to be known as Addison's disease.

The organs which are attacked, the suprarenal glands, are glands of internal secretion; that is, they have no duct leading from them, but give their products directly to the blood stream. They lie above the kidneys, are roughly triangular in shape, and are small but very important. From them comes the well known substance adrenalin and other substances.

Many Have Tried

It is one of these other substances, a material which is essential to life and which is missing in Addison's disease, that a number of scientists have been trying to isolate, and which, apparently, Drs. Swingle and Pfiffner have obtained. Without this substance not a great deal of progress has been made in the treatment of Addison's disease since the days of Addison.

The present period of progress began in March of this year. At that time Drs. Swingle and Pfiffner in a note in

Science offered experimental evidence that they had isolated the long sought "cortical hormone" of the suprarenal gland. They followed this up by further evidence.

Shortly thereafter, Dr. Rowntree was called to see a patient who was in a state of collapse from Addison's disease, the condition which physicians speak of as a crisis of the disease. Hitherto, treatment of patients in this condition has been practically hopeless. A telegram sent to Dr. Swingle brought a supply of the hormone by air mail.

One of the characteristics of the disease is vomiting that cannot be stopped. The patient just referred to could not retain food. Within two days after the hormone had been given, however, he asked for wieners and sauerkraut but accepted a double order of beefsteak instead. Three days after the last dose of the hormone had been given to this patient he said that he felt in a perfect state of health.

Another patient, who was tired, exhausted, and whose condition was getting worse was given the hormone. By the fifth day she was able to run along the corridor of the hospital without difficulty. The effect has been similar to those just related in three other cases, five in all.

These results are startlingly good. Dr. Rowntree, whose experience with Addison's disease includes some ninety patients, a large number for this rare disease, has not seen their equal. Yet, the question remains how to evaluate the treatment.

On the basis of what has been accomplished, Drs. Swingle, Pfiffner, Rowntree and Greene make no claim that the cure of Addison's disease has been found. Neither would any other scientist. Insulin is not a cure for diabetes, but it is a substitute for a missing necessary substance, and, after nearly ten years, it seems that it will maintain life and a state as effective as health.

Whether or not the suprarenal cortical hormone will prove as efficient as insulin is as yet unknown. In many



Dr. W. W. SWINGLE

Who with Dr. J. J. Pfiffner, both of Princeton University, isolated what is thought to be the long sought "cortical hormone" of the suprarenal gland, and which has been successful in combating Addison's disease.

cases of Addison's disease the underlying condition which causes destruction of the suprarenal glands is tuberculosis. There is no reason to believe that the cortical hormone will cure tuberculosis. It is not even known yet whether, if the tuberculosis is checked, the hormone will prolong life year after year, as it is becoming evident that insulin seems able to do in diabetes.

It apparently is established, however, that the cortical hormone has saved life in the crises of Addison's disease. In the words of Dr. Rowntree, before the Post Graduate Medical Assembly, at its recent meeting:

"The effects in the crises of Addison's disease are as striking, and I believe as sure, as the effects of insulin in the coma of diabetes. Time only will reveal to what extent the cortical hormone could constitute a cure."

Science News Letter, December 27, 1930

METEOROLOGY—SEISMOLOGY

Storm May Have Caused Earth to Quiver

SEVERE earth vibrations, known to scientists as "microseisms," which occurred for several days beginning Sunday, Dec. 14, seem to be associated with the area of low atmospheric pressure that was travelling up the Atlantic coast at the time. Rev. F. W. Sohon, S. J., in charge of the Georgetown University Seismograph Station in Washington, said that the vibrations were very marked, and would have prevented a satisfactory record of a real earthquake

if one had occurred then. He stated, however, that while severe, they were not extraordinarily so, but that they had often been observed in the past, of even greater intensity.

He cited the opinion of his predecessor, the late Rev. F. A. Tondorf, S. J., that the low pressure area produces a shaking of the entire coast, which is

recorded on the sensitive seismograph. Microseisms differ from earthquakes in that they are continuous, while the actual earthquake record is separated into well-defined phases. The microseism vibrations have a period of four or five seconds, while the earthquake waves are much longer.

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ORNITHOLOGY

Talking Bird From India Found Wild in California

Fearing Spread of Another Pest Like Sparrow and Starling, Authorities Destroy Mynah Colony and Look for More

A TALKING bird from India, that can mimic human speech better than a parrot, has been found wild in Los Angeles, nesting in a tile air vent of a Spanish house. But instead of being welcomed, this bird, the common or house mynah, was immediately set upon as an undesirable alien and the little colony, seven individuals all told, exterminated by the authorities. They are now hunting for other possible mynah colonists, determined to keep this foreign species from gaining a foothold in America.

The objection to the mynah is essentially the same as the objection to the English sparrow and the European starling, which have become widespread pests in this country. Interesting enough individually, and even well liked as pets, mynahs in the wild state form huge, noisy flocks that haunt the homes of men, nesting under the eaves and in all other crannies they can find about buildings. They multiply with surprising rapidity and become a menace to native birds, not only because they compete with them for food but also because of their overbearing truculence against other species. Their huge flocks are also troublesome feeders in fruit-raising regions.

Though the common mynah has gained a foothold in many localities outside its native land, it has never before been reported from North America in a wild state. A close relative, the crested mynah or Chinese starling, however, has established itself in British Columbia, and its spread into the United States is to be feared.

The common mynah can be identi-

fied by its large size (slightly greater than that of a robin), its dark plumage, with white wing and tail feathers showing prominently in flight, its conspicuous yellow bill, yellow legs, and bare patch of yellow behind the eye.

The discovery of the Los Angeles mynah colony was made by Dr. Calla E. Starbuck. She reported her find to the Los Angeles Museum and to the University of California at Los Angeles. George Willett, ornithologist of the museum, and Dr. Loye Miller, chairman of the biology department of the university, confirmed the identification. Deputies of the Los Angeles County Agricultural Commission destroyed the colony.

Science News Letter, December 27, 1930

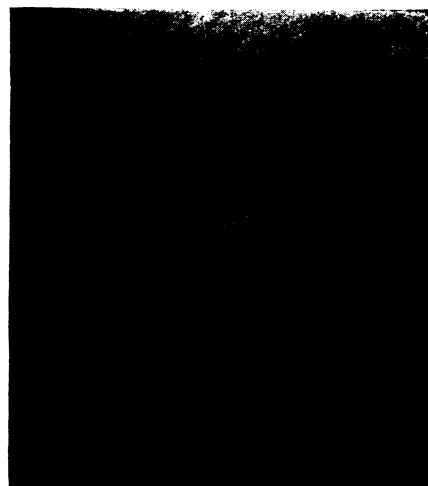
INDUSTRIAL SAFETY

Young Girls Oftenest Hurt in Industry

OF THE women injured in industrial accidents, the greatest numbers are in the younger age groups, the U. S. Women's Bureau has found from a study of cases receiving employee's compensation in eight states.

In Maryland, over 40 per cent. of the compensation claims allowed during one year were for accidents to young girls under 21 years of age. This number is way out of proportion to the number of that age employed in industry, for census figures show less than 21 per cent. of employed women in Maryland to be under 20. In other states the proportion of injured under 21 years run from 25.5 per cent. in Massachusetts to 37 per cent. in Georgia.

Although fewer girls than boys were



UNDESIRED IMMIGRANT

Agreeable as a pet, but a nuisance as a neighbor: the common mynah of south-eastern Asia, whose appearance in Los Angeles was hailed with anything but joy by the authorities.

hurt, the proportion of young people was higher for the women. Young people were most often hurt by machinery; older ones by falls. The most serious injuries occurred in the laundry industry.

Science News Letter, December 27, 1930

CHEMISTRY

Missouri Chemists Refine Radium From Watch Paint

CHEMISTS at the University of Missouri, Columbia, Mo., under supervision of Dr. Herman Schlundt, have started in operation the only known factory in the United States for refining radium from the paint off luminous dials of old watches and clocks. Already several thousands of dollars' worth of the precious element has been recovered in this manner.

Out of several hundred pounds of paint about one-hundredth part of an ounce is radium. At the present market price this element is nearly \$70 a milligram, or almost \$2,000,000 an ounce.

A refining plant for mesothorium, another commonly used radioactive element, was also established by Dr. Schlundt at the University of Missouri and has been in operation several years. Last year between \$25,000 and \$50,000 worth of mesothorium was refined.

By way of comparison it has been pointed out that mesothorium is worth about \$40 a milligram while radium is worth nearly twice that amount. Radium endures thousands of years but its substitute loses one-half its strength in seven.

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