

Briton Detected Disease in 1855; First to Link Ailment to Adrenals

The discovery of Addison's disease in 1855 by an eminent British physician has been described as "one of the most brilliant achievements of medicine in the 19th century."

Until Dr. Thomas Addison of London described the disease, the adrenals, tiny yellow glands sitting atop the kidneys, were not known to be the seat of any definite disease.

The affliction is extremely rare. It is estimated that fewer than 1,000 Americans suffer from the ailment, which occurs about equally in both sexes and in all age groups.

Addison's disease, as originally described by Dr. Addison, resulted from tuberculosis that destroyed the glands. But it is now known that about three-quarters of the cases result from the atrophy of the glands for unknown reasons.

When the glands shrink, their normal secretion of three hormones called aldosterone, hydrocortisone and de-oxycorticosterone may be either sharply reduced or stopped entirely.

These hormones are essential to life. Various fractions maintain the physiological "steady states" in regulation of the distribution of water and electrolytes and in many aspects of carbohydrate me-

tabolism and muscular efficiency.

In the absence of hydrocortisone not enough carbohydrate is formed from the proteins in food and too little fat and too much carbohydrate are broken down by the body.

Thus the body does not derive the energy it needs from food and as a result resistance to infection and other conditions of stress is diminished. This lack of carbohydrate energy also tends to make a person become listless and tire easily.

If tuberculosis is the cause of a case of Addison's disease, the mucous membranes of the lips, mouth and elsewhere turn bluish black. In President Kennedy's case, however, all the physicians concerned emphasized that he did not have the "classical," that is TB-induced, form of the ailment.

The fighting of infections is one of the main problems of the disease. If an acute infection occurs, as it did in Mr. Kennedy's case as a result of an operation, a person may become breathless, develop pains in his abdomen, lower back and legs, and his kidneys may stop functioning.

If a person's kidneys were to stop working he would soon die of uremic poisoning.