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ANATOMY OF SUPRARENAL GLAND AND
ITS SIGNIFICANCE TO INDIVIDUAL HEALTH
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The suprarenal glands, also known as adrenal glands, belong to the endocrine system. They are a pair of triangular-shaped glands that sit on top of the kidneys. The suprarenal glands are responsible for the release of hormones that regulate metabolism, immune system function, and the salt-water balance in the bloodstream; they also aid in the body's response to stress. Cortex produces mineralocorticoids (aldosterone), glucocorticoids and androgens. Medulla of adrenal glands produces adrenalin and noradrenalin. Thus these glands produce hormones that one can't live without, including sex hormones and cortisol, which helps one respond to stress and has many other functions. This research paper looks at two pathologies of the suprarenal gland, they are Addison Disease and Cushing Syndrome.

Addison disease (or Addison's disease) is adrenocortical insufficiency due to the destruction or dysfunction of the entire adrenal cortex. It affects glucocorticoid and mineralocorticoid function. The onset of disease usually occurs when 90% or more of both adrenal cortices are dysfunctional or destroyed.

Cushing's syndrome is a hormonal disorder. The cause is long-term exposure to too much cortisol, a hormone that your adrenal gland makes. Sometimes, taking synthetic hormone medicine to treat an inflammatory disease leads to Cushing's. Some kinds of tumors produce a hormone that can cause your body to make too much cortisol.

In both of the above mentioned suprarenal pathologies, they highlight the importance of the role that the suprarenal gland plays in overall wellness of the body. The management of a case involving Cushing disease, defined as excess secretion of adrenocorticotrophic hormone (ACTH) from a pituitary adenoma, remains one of the most vexing problems facing the pituitary surgeon. The systemic consequences of this endocrinopathy are profound morbidity and premature death in the unfortunate patients in whom remission fails to occur.

Morbidity and mortality associated with Addison disease usually are due to failure or delay in making the diagnosis or a failure to institute adequate glucocorticoid and mineralocorticoid replacement.

If not treated promptly, acute addisonian crisis may result in death. This may be provoked either de novo, such as by adrenal hemorrhage, or in the setting of an acute event superimposed on chronic or inadequately treated adrenocortical insufficiency. With slow-onset chronic Addison disease, significant low-level, nonspecific, but debilitating, symptomatology may occur. Even after diagnosis and treatment, the risk of death is more than 2-fold higher in patients with Addison disease. Cardiovascular, malignant, and infectious diseases are responsible for the higher mortality rate

In conclusion, the suprarenal gland is a vital endocrine organ, which function is important to the overall wellness of all person, unlike some organs, that in extreme of condition, one may be able to survive without them, such spleen or tonsil for example as other organ system can be adapted to carry out function. This is not the case with the suprarenal gland, it is essential to overall develop and regulation of various vital bodily function base on the hormones, it produces. Its relevance is highlighted when one looks at two pathologies of the suprarenal gland, specifically Addison Disease and Cushing Syndrome.