Subclinical Endocrine Diseases

Introduction:

Subclinical disease is an illness that stays below the surface of clinical detection , and has no recognizable clinical findings. Many diseases, including diabetes, hypothyroidism, hyperthyroidism and rheumatoid arthritis, can be subclinical before surfacing as clinical diseases **(Sgarbi et al., 2003)**.

Subclinical hypothyroidism is defined as high TSH in the face of normal free T_3 & free T_4 . it affects 6-7% of females and 2-3% of males. It is a benign remitting process, and may not require therapy **(Surks et al., 2004)**.

Subclinical hyperthyroidism is defined as a normal serum free thyroxine (T_4) and free triiodothyronine (T_3) levels with a thyroid-stimulating hormone (TSH) level suppressed below the normal range and usually undetectable. It has been reported that subclinical hyperthyroidism is not associated with coronary heart disease or mortality from cardiovascular causes but it is sufficient to induce arrhythmias including atrial fibrillation **(Surks et al., 2004)**.

Subclinical diabetes is form of diabetes mellitus that is clinically evident only under certain circumstances, such as pregnancy or extreme stress **(Col et al., 2004)**.

In some patients the serum calcium is at the upper end of the normal range and the parathyroid hormone (PTH) is inappropriately elevated. This condition, is called normocalcemic hyperparathyroidism.

Subclinical Cushing's syndrome occurs in patients bearing clinically inapparent adrenal adenoma secreting cortisol in an autonomous and unregulated way that is not fully restrained by pituitary feedback **(Arnaldi et al., 2003)**.

Adrenal autoantibodies causing primary adrenal insufficiency appear months to years before the appearance of clinical signs of adrenal insufficiency and a pre-clinical phase of the disease can be recognized **(Caplan , 2006)**.

Pituitary incidentaloma is defined as a sellar mass discovered by CT or MRI in the absence of any symptoms or clinical findings suggestive of a pituitary disease. The prevalence of pituitary incidentalomas found by MRI is about 10% and most are microadenomas **(Grumbach et al., 2003)**.