

Thyroid and Its New Advances in Treatment

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Advance Treatment in Thyroid

Thyroid is a butterfly-shaped gland located at the base of the neck. Thyroid produces thyroid hormone (TSH), controls many activities in the body. When thyroid does not make enough thyroid hormones, this condition is called as Hypothyroidism. If the thyroid produces more than the required hormones, this condition is called as Hyperthyroidism. Women are more likely to have thyroid disease more than in men.

In recent studies patients with thyroid carcinoma followed long term found that displaced equilibria and resulting lower FT3 concentrations were associated with a lack of symptom relief, irrespective of age, gender, weight. The other contradict assumptions are that patients may invariably gain satisfaction from LT4 treatment when TSH levels are kept within or even below reference range.

Hypothyroid patient should not choose for under-treatment and forego symptom relief of an exaggerated fear of over-treatment. On the other hand, long-term risks of LT4 treatment should also be carefully evaluated.

Replacement of Thyroid hormone for hypothyroidism can be achieved through several approaches using different preparations of thyroid hormones, T3, and/or T4. Combination therapy involves is initial treatment for hypothyroidism which involves administration of both T3 and T4. Combination therapy is a natural thyroid preparations remained as the dominant therapeutic option for twentieth century.

Strategies used for other combination therapies are intravenous/subcutaneous administration of thyroid extract was used by Murray to treat myxedema per oral thyroid extract, or the consumption of raw or cooked thyroid gland. These strategies have a remarkable success. Progress towards a recent thyroid transplant treatment modality is on-going given that functional

thyroid tissue can be generated from stem cells by over-expression of the thyroid transcription factors. Clinical trials were designed to assess the efficacy & dose equivalency between the multiple forms in the replacement of thyroid hormone.

The pituitary thyroid hormone response is too diverse and to be viewed as a sensitive mirror image function of the thyroid gland. The interlocking elements of the control system are highly individual, dynamic, & adaptive.

A newest disease class of subclinical hypothyroidism was introduced, which is exclusively based on the presence of an elevated TSH while the thyroid hormones FT3 and FT4 remain within their reference ranges.

Treatment of Thyroid Cancer is based on Type and Stage of the cancer.

An estimated incidence of thyroid cancer is four cases per million population year. Earlier it is observed that thyroid cancer responds to radioactive iodine therapy is a rare condition. Now-a-days, it is changing. If a patient is diagnosed with thyroid cancer, having several options for therapy PFS (Progression-Free Survival) & some reduces the tumor size. Complete destruction of tumor is a rare case. A case of locally advanced or metastatic thyroid cancer is remained unclear.

Sometimes, it becomes advanced or recurs after treatment for thyroid cancer. Mostly, this condition is seen lymph nodes. This type of tumors grows slowly and few do not grow.

The best method for treating thyroid cancer is surgery. Radiation therapy is suggested for the recurrent tumor i.e., external-beam radiation therapy. There are two ways for treating recurrent thyroid cancer Proton therapy & Intensity-modulated radiation therapy.

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