

Hyperthyroidism in children

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Hyperthyroidism refers to over activity of the thyroid gland, which leads to excessive release of thyroid hormones and consequently accelerated metabolism in the peripheral tissues. Thyrotoxicosis, however, refers to the clinical effects of unbound thyroid hormones, whether or not the thyroid gland is the primary source.

Hyperthyroidism is a relatively rare condition in children. The vast majority of cases are caused by Graves disease. Numerous therapeutic options are available, so most patients do well. The risk of relapse or subsequent hypothyroidism is substantially higher in adults than in children and adolescents.

Hyperthyroidism in childhood include the following:

- Graves disease
- Toxic adenoma, toxic nodular goiter
- McCune-Albright syndrome
- Sub-acute (viral) thyroiditis
- Chronic lymphocytic thyroiditis
- Bacterial thyroiditis

Pituitary causes of thyrotoxicosis in childhood include pituitary adenoma and pituitary resistance to T4. Other causes of thyrotoxicosis in childhood include the following:

- Exogenous thyroid hormone
- Iodine-induced hyperthyroidism (Jod-Basedow phenomenon)



- Human chorionic gonadotropin (hCG) secreting tumor

Graves disease is associated with human leukocyte antigen (HLA)-B8 and HLA-DR3 and is more common in some families than in others. Although females are affected by Graves disease more often than males, with a reported female-to-male ratio of 3-6:1, the frequency of neonatal Graves disease is equal in males and females.

The course of neonatal Graves disease is self-limiting, the prognosis is considerably worse than that in older children. As a result of their disease, patients are prone to prematurity, airway obstruction, and heart failure. The mortality rate from these conditions has been as high as 16%. Complications from hyperthyroidism include the following:

- Congestive heart failure
- Craniosynostosis in neonates
- Developmental delay in neonates
- Hypothyroidism

Remission rates of Graves disease vary from 34-64% in patients taking antithyroid medication. Recurrence can occur months or years after the discontinuation of therapy. Treatment with radioiodine or surgical subthyroidectomy is very effective, but most patients develop hypothyroidism and require lifelong thyroid replacement.

The common symptoms of hyperactivity, nervousness and emotional lability are often attributed to other causes, most frequently attention deficit hyperactivity disorder (ADHD). Alterations in mental status may be seen in almost one half of all

exophthalmos, lid lag, lid retraction, chemosis, periorbital oedema, optic atrophy etc. Other physical findings may include smooth sweaty skin, tremor or muscle fasciculation, proximal muscle weakness, systemic hypertension etc.

Thyroid Function Tests

Hyperthyroidism can be confirmed simply and quickly with measurements of T4, T3, T3 resin uptake (T3RU), and thyroid-stimulating hormone (TSH). Patients with Graves disease have elevated levels of T4, T3, and T3 RU and low or undetectable levels of TSH.

Surgery

Surgery is the oldest treatment for Graves disease and is quite effective. Generally, patients are initially treated with antithyroid medications. Iodide is then added before surgery to decrease the vascularity of the thyroid gland. To minimize risk of recurrence, most of the gland is removed. Consequently, the risk of permanent hypothyroidism is high. Patients may require lifelong T4 replacement. Overall, treatment with antithyroid medications is a relatively safe option, provided that patients are willing to participate in prolonged therapy. Currently, this is considered to be the treatment of choice in children and adolescents.

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HAVE A NICE DAY

Finding good doctors



When undergoing any type of medical treatment or surgery, everybody wants to be in the best hands possible. And it is really important these days to do homework in order to select the best doctor for your needs. But sometimes it is not that easy to know where to find the

correct information and we become helpless, upset and frustrated. When choosing a doctor, try to follow the tips mentioned below.

1. When you are looking for a good doctor, ask for referrals from your well-wishers who have had personal medical experiences. If you know someone who has recently undergone a similar treatment ask them about their doctors and whether their experiences were good or bad. Best would be a doctor friend/relative who suffered him/herself or an intelligent hospital administrator (although a little difficult to find) who deals with doctors regularly. Regarding clinical consultant, make sure s/he is properly qualified to do so. Some say, finding the right surgeon takes the same effort as shopping, so look for several resources before you make a decision. You want to find the most experienced surgeon for your particular operation.

2. Choosing a doctor is not just a matter of checking their high qualifications. Although it is natural to gravitate towards the lowest price tag, sometimes this means settling for a doctor with less experience. Although price and qualifications should certainly be factors in taking your decision, there needs to be a good blend of knowledge and ample experience.

3. Along with the consultant, there are couple of other important factors one should never forget; such as his/her assistants (who is always reachable, especially after surgery), nurses and whether you feel at ease in the doctor's office. Schedule a consultation visit to make sure that the doctor is pleasant and responsive to you. A good doctor will simply explain your options and will take the time to answer your questions about the treatment.

4. Sometimes alternative doctors without certification, experience and without research documentation like to pretend they are the healers, offering treatments that may give temporary relief but will eventually make you sicker and make the condition worse.

5. Try to avoid doctors who are busy with other engagements rather than his clinical practise which means 'treating the patients'. If these medical professionals think they are indispensable in medical teaching and administration; in that case a wise clinician should concentrate mainly on patients 'first and always' and dedicate themselves in their concerned researches.

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HEALTH bulletin

Landmark achievement of Apollo Hospitals Dhaka

STAR HEALTH REPORT

Dr. Abu Jafar Mohammed Saleh, consultant of adult haematology and haematopoietic stem cell transplant and his team conducted the first ever successful autologous stem cell transplantation in the history of private hospitals in Bangladesh on March 12, 2016, independent of any external support.

"Autologous transplants, which is using the person's own stem cells to replace stem cells damaged by chemotherapy, is an essential component of treatment for various haematological conditions, such as multiple myeloma, lymphoma and some forms of leukaemia," explained Dr. Saleh.

Along with his team, Dr. Saleh treated the 71 year old male patient who has been suffering from multiple myeloma for 9 months. Even though they had visited the hospitals in Bangkok earlier, the patient's family finally chose Apollo Hospitals Dhaka, considering the comfort and confidence in getting treatment here.

Having spent 10 years at King Faisal Special Hospital and Research Centre in the Kingdom of Saudi Arabia and having conducted more than a thousand bone marrow transplants, Dr. Saleh has extensive hands-on experience in all aspects of bone marrow transplant such as clinical management, transfusion medicine and stem cell processing. Apollo Hospitals Dhaka has



invested rigorously in technology such as creating positive pressure rooms for ensuring complete sterile environment for immune-compromised patients, development of apheresis unit for separation of different blood components and comprehensive diagnostic workup facilities.

To provide comprehensive management for all kinds of haematological disorders, Apollo Hospitals Dhaka has trained their team, comprising of doctors, nurses, technologists and pharmacists at renowned centres abroad. Also, the haematology and bone marrow transplant center at Apollo Hospitals Dhaka is the only center in Bangladesh that provides comprehensive haematology-oncological services which

includes therapeutic plasma exchange, stem cell apheresis and different blood cell apheresis.

"I am very happy that we did this procedure successfully," said Dr. Saleh. "Until now, many patients with blood disorders such as leukaemia, lymphoma and myeloma, have been going abroad for treatment. However, as of today, we have 18 patients registered with us for bone marrow transplantation, most of whom were originally planning to go abroad. This is because, at Apollo Hospitals Dhaka, we believe that people need not suffer the worry and the expenses in going abroad for treatment, when international standard treatment is available here."



Ban Ki-moon received "Girls and Women Award"

On the occasion of the Commission on the Status of Women's annual meeting and during an Every Woman Every Child event at U.N. headquarters, Women Deliver presented the first-ever 'Delivering for Girls and Women' award to the U.N. Secretary-General Ban Ki-moon.

Women Deliver is a leading global advocacy organization for the health, rights, and wellbeing of girls and women. The Women Deliver award was created to recognize true visionaries for game-changing efforts that move the needle forward for girls and women, and to initiatives, like Every Woman Every Child, that will lead to significant progress in the future.

"While I am honored to receive this award, the true champions are fighting on the frontlines for health rights every day," remarked the Secretary-General.

"The UN Secretary-General has helped propel gender equality and girls' and women's health, rights and wellbeing to the forefront of the global agenda and into the SDGs," said Katja Iversen, CEO of Women Deliver.

At the event the UN Secretary-General called all stakeholders to make a new commitment to Every Woman Every Child.

Philips continues to create awareness on sleep disorders

More than 100 million people globally suffer from obstructive sleep apnea (OSA). Sleep apnea is a common sleep disorder characterized by repeated interruptions in breathing throughout the sleep cycle. Chronic sleep or respiratory conditions can have devastating effects if not treated or diagnosed, and it is estimated that 80 percent of patients with OSA remain undiagnosed, which can impact long-term health by turning sleep or breathing into a burden.

According to a 2015 Philips Respironics survey that surveyed people in 10 countries, 96 percent said sleep was valuable to them and 87 percent ranked sleep as an influence on their overall health and wellbeing; however of those surveyed, only 17 percent consistently slept through the night.

In recent years, Philips has made a significant effort to encourage people to be screened for OSA and other sleep disorders. Globally, it is estimated that 100 million people suffer from OSA, with an overwhelming 80% of them remaining undiagnosed.



Causes

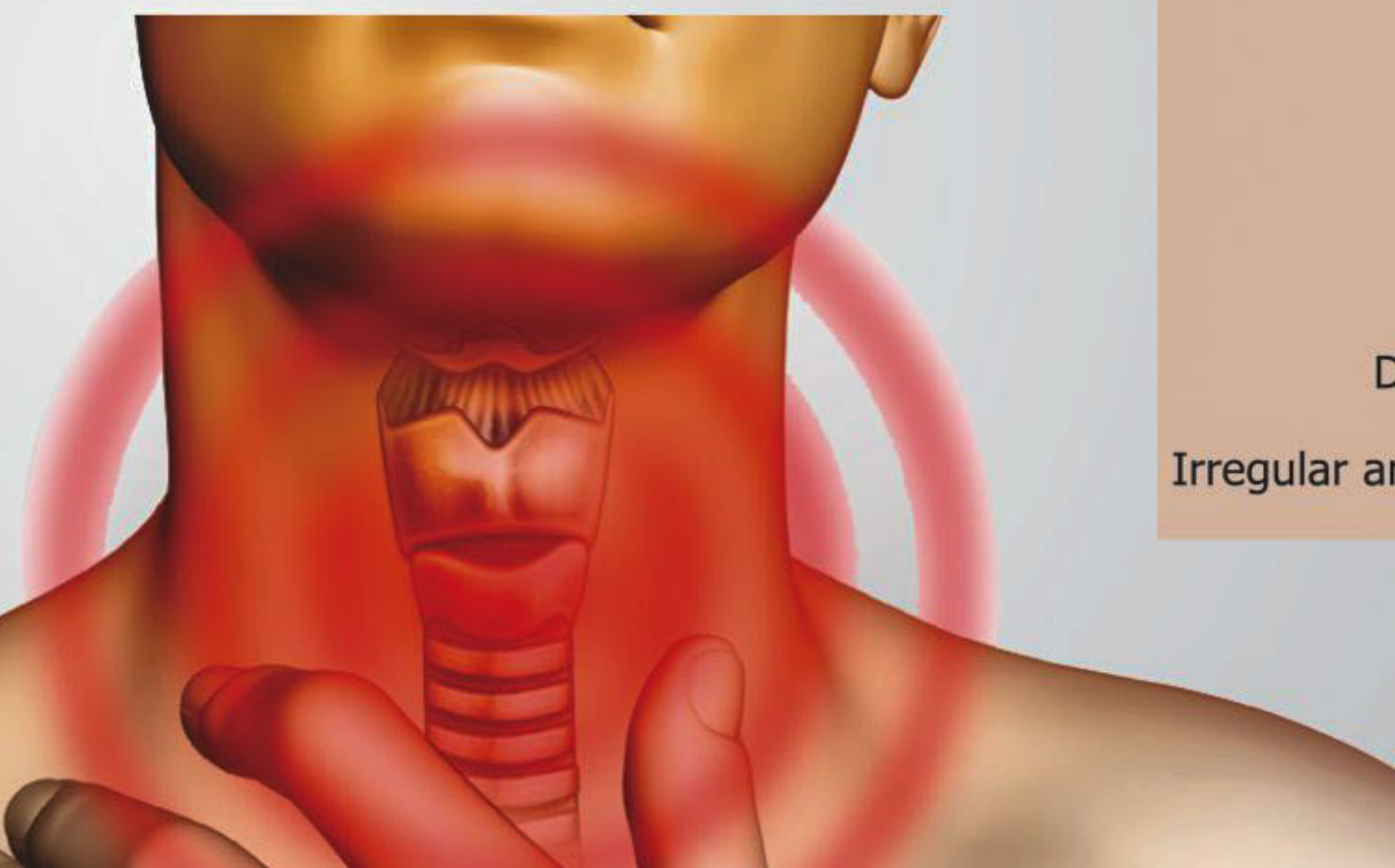
- Functioning adenoma ("hot nodule") and toxic multinodular goiter (TMNG)
- Excessive intake of thyroid hormones
- Abnormal secretion of TSH
- Thyroiditis (inflammation of the thyroid gland)
- Excessive iodine intake

The triggers for Grave's disease

- Stress
- Smoking
- Radiation to the neck
- Medications
- Infectious organisms such as viruses

Hyperthyroidism, also known as over active thyroid and Hyperthyreosis, is the condition that occurs due to excessive production of thyroid hormone by the thyroid gland.

Hyperthyroidism



Symptoms

- Excessive sweating
- Heat intolerance
- Increased bowel movements
- Tremor (usually fine shaking)
- Nervousness; agitation
- Rapid heart rate
- Weight loss
- Fatigue
- Decreased concentration
- Irregular and scant menstrual flow

