

SERUM TIMES

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SERUM MEDICAL BULLETIN

From the desk of the Editor-in-Chief

Dear Doctors / Readers,

Hope you are well. In the continuing threat of the Corona pandemic, another pandemic monkeypox is spreading around the world. Even in the July issue of ST, we mentioned that in India there was not any case of monkeypox patients. But in this August issue, we are not at all relieved from the threat of monkeypox. A few cases have been detected first in Kerala and later in Delhi. As of now, it has spread to more than 75 countries including India. So, we have again decided to discuss some up-to-date matters on monkeypox. In the last section of this issue, a special story covers many new information about it.



In this issue, we are going to discuss thyroid hormones and problem-related to them. Thyroid diseases are common and increasing around the world as well as in India. It has been estimated that about 42 million people in India suffer from thyroid diseases. There are mainly five common thyroid diseases in India - hypothyroidism, hyperthyroidism, goitre & iodine deficiency disorders, Hashimoto's thyroiditis, and thyroid cancer. Thyroid diseases are considered to be the commonest endocrine disorder. It affects an estimated 200 million people worldwide. Also, an estimated 40% of the world's population, i.e., some 2.8 thousand million people are at risk of iodine deficiency. The iodine nutrient is essential for the production of thyroid hormones.

One interesting point should be noted here. Thyroid diseases are different from other diseases. It is very easy to diagnose. Medical treatment is easy and accessible. A small swelling of the thyroid can be treated by physicians. It is experienced that by early diagnosis and treatment any patient can maintain a normal life.

Who is mostly affected by thyroid diseases?

It is difficult to be certain about this. But as per the NFHS-IV (2015-16) amongst 6,99,686 women in their reproductive age groups (15-49 years), those in the highest quintile of wealth index have a three to four-fold higher risk of having thyroid disorders. In addition, there was a graded increase in the risk of having thyroid disorders from poorest to richest.

India is going to observe 75 years of its independence from 15 August of this year. Many persons will examine what India has achieved in this long time. There will be a debate on the analysis of achievements or failures assessments. But one point is clear unless achievements are not shared by every citizen then our progress will not be meaningful.

With good wishes to all of you

Sanjib Acharya

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The basics of thyroid diseases

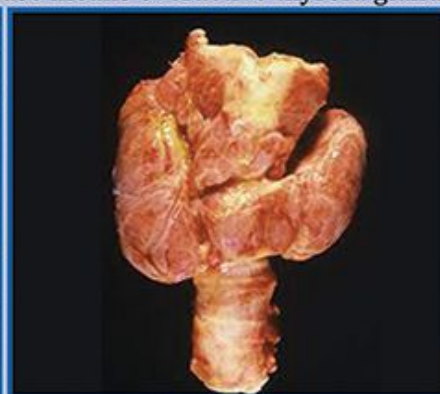
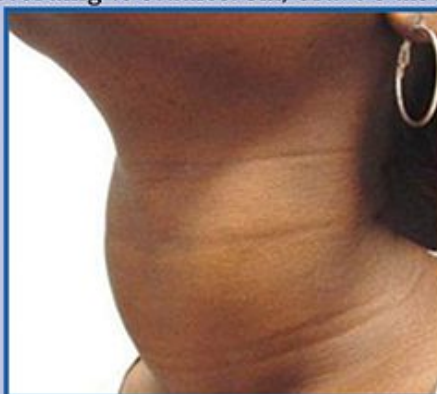
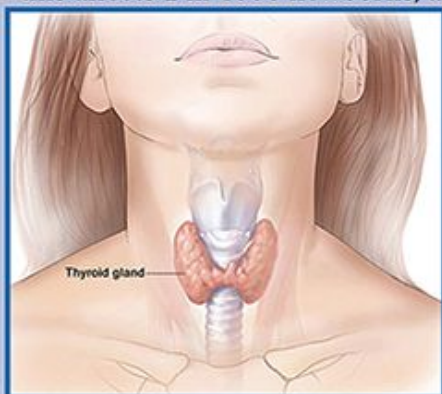
In the human body, the thyroid produces hormones that play roles in many different systems throughout the human body. When thyroid makes either too much or too little of these important hormones, it is called a thyroid disease.

There are different thyroid diseases.

The International Journal of Dental and Medical Speciality, April-June 2015, reported that out of 100 thyroid patients about 66.4% are female, and the rest 33.6% are male. That means females are more vulnerable to thyroid diseases. It was also pointed out in the issue that as age goes up the incidence of thyroid problems increases and after 70 years of age possibility of thyroid disease rapidly goes down. About 34.4% of patients are in between 31 to 50 years. This is higher at 38.3% between 51 and 70 years. So, it is an age-related disease also.

What causes Thyroid diseases?

There are two main diseases, 1) Hypothyroidism, and 2) hyperthyroidism. Both are caused by other diseases that impact the way the thyroid gland works. Causes behind hypothyroidism include one, Thyroiditis is an inflammation or swelling of the thyroid gland. It lowers the amount of hormone production. Two, Hashimoto's thyroiditis is a painless disease and an autoimmune condition where body's cells attack and damage the thyroid. This is an inherited condition. Three, Postpartum thyroiditis: is a temporary condition that occurs in 5% to 9% of women after childbirth. Four, iodine deficiency: affects millions of people around the world. Five, non-functioning thyroid gland: this affects 1 in 4000 newborns, according to studies. Six, Grave's disease means overactive thyroid gland



Seven, Nodules: means Hyperthyroidism which is caused by nodules that are overactive within the thyroid. The other two are Thyroiditis which disorder can last for a few weeks and excessive iodine.

Tests to check thyroid diseases

Thyroid-related diseases are diagnosed from blood tests. These include 1) thyroid stimulating hormone (TSH) test to know how well the thyroid is working, 2) T4 test to measure the blood level of the hormone T4, 3) T3 total test which measures the other major thyroid hormone in the blood, and 4) thyroid antibody test.

The way forward

Thyroid awareness can be increased so that can it helps early diagnosis and treatment. That can reduce the problem of thyroid in India. There is an organization, MITA, Making India Thyroid Aware. We need more such organizations to deal with a populous country like India. There must be special arrangements in government hospitals even at the village level to treat the women with special care.

A different monkey pox variant is found now in India

Monkeypox is originally a disease of Africa. But a variant of it, comparatively small in size, is predominantly seen in US, Thailand, and now in India. The variant is known as A2. But the monkeypox responsible for the large outbreaks in Europe and elsewhere belongs to the B1 lineage. It is important to note the variant found in persons in India (A2) with recent travel history of the Middle East. The A2 variant is spreading outside of endemic countries quicker than expected. With 4,907 as of July 28, cases the US has the highest number of monkeypox in the world. The European country as a whole reported 13,043 cases as of July 26.

About B1 and A2

There are two distinct genetic clades of the monkeypox virus. One is the central African (Congo Basin) clade also known as B1, and two is the West African clade, known as A2. The Congo Basin clade has historically caused more severe disease and was thought to be more transmissible.

Monkeypox vaccines

There is yet no dedicated monkeypox vaccine. Its virus belongs to a family of viruses called orthopoxviruses. The US Food and Drugs Administration (FDA) approved the JYNNEOS vaccine for the prevention of smallpox, monkeypox, and other diseases caused by orthopoxviruses. These include contacts of those who have been confirmed to have been contacted with a monkeypox infection, sexual partners of those confirmed with an infection, and those whose immune systems are compromised. The



vaccines are available in many European countries like Denmark, Germany, France, Spain, Portugal, and UK. It is also available in Israel, Mexico, Nigeria, Congo, etc.

Vaccines in India

In India, six cases of monkeypox have been detected so far. Health Ministry officials reportedly said that discussions were in progress with international and local companies for a vaccine. The officials reportedly said the genomic sequence of the Indian strain has a 99.85% match with the West African strain circulating globally. One thing to be noted here is that the monkeypox virus is not highly transmissible compared with the SARS-CoV-2 virus.

This is due to the fact that it requires close, intimate contact to spread from one person to person.

CSR Activities & Events of SERUM throughout July, 2022



July 1: Sri Sanjib Acharya at Health Camp organized by Kolkata Sutanati Education & Welfare Association.



July 17: Sri Sanjib Acharya at the Blood Donation Camp organized by Sarbodoya Sonmeloni



July 24: Sri Sanjib Acharya present at the Blood Donation Festival organized by Shantinagar Jiban Sathi Sangha.

SERUM Half-yearly Meetings



July 20: Odisha Meeting



July 17: South Bihar Meeting



July 3: North Bihar Meeting



July 2: Murshidabad & Malda Meeting

Free Doctors' Clinic & Diagnostic Services



July 12: by Dr. Shekhar Ghosh



July 28: by Dr. Prabhat Bhattacharya



Classes of Varsha - The School for Special Children



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