



SERUM TIMES

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SERUM MEDICAL BULLETIN

From the desk of the Editor-in-Chief

Dear Readers/Doctors,

We hope you are well. We have been in the midst of the rainy season. During this season, a large number of people fall ill. We discussed various health problems associated with the rainy season in the last July issue of ST. We request you to reread it if required.



Nipah virus-infected persons have been spreading in Kerala again. As of 8th July, as many as 425 people have been kept under supervision after two persons entered the contact list of Nipah-infected persons. Nipah is a deadly virus. So, one should avoid touring Kerala for a few months at least.

Nipah spreads mostly when the patients are in critical condition. At an earlier stage, it may not be contagious. So, surveillance has been focused on the places where it has been contracted the Nipah virus. In Kerala, field surveillance has been strengthened, and health office personnel have been trying to ensure social and mental support to those who are in quarantine.

It is reported (The Hindu, 8th July) that the global death rate due to Nipah is 70% to 90%. But Kerala faced Nipah in 2018 and 2023, and the death toll was 33% in 2023, according to the Health Minister of Kerala, Veena George.

In this issue, we have discussed two important medical issues. Story 1 has been about arthritis. The disease is prevalent among all ages. The two very common types of arthritis are osteoarthritis (OA) and rheumatoid arthritis (RA). The first type and the most prevalent one refers to the breakdown of cartilage. The second type happens when the immune system attacks the joints, and it starts with the lining of the joints. It is a highly prevalent disease in India, affecting about 180 million people, according to an estimate. Out of this, OA accounts for 60% and RA affects 0.75% to 1% of the Indian people.

Story 2 points out new research on controlling Alzheimer's disease. Alzheimer's is a progressive disease that destroys memory and other important mental functions. The problems cannot be cured when at the mature stage. But a recent study finds that a test, known as the insulin resistance test, can give a signal that indicates the intensity of the problem. So, treatment can be started at an early stage if it is diagnosed early. So, please read the articles carefully.

In the next month Festival season will start. So, take care and stay safe.

With best wishes to you again. Thanking you

Sanjib Acharya

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Arthritis - a common disease, proper lifestyle and medication needed

Story 1

Arthritis is a common disease, particularly for persons above 50 years. Women suffer more from it. Arthritis is a disease that causes damage to one's joints. Joints are places in the body where two bones meet. In many cases, people develop arthritis after the normal, lifelong wear and tear. In some cases, it happens after an injury. Some of the joints where arthritis is common have been hands and wrists, knees, hips, feet and ankles, shoulders, and lower back. World Health Organization data show that in India, about 9.6% of men and 18% of women aged 60 suffer from arthritis.

There are, mainly, two types of arthritis

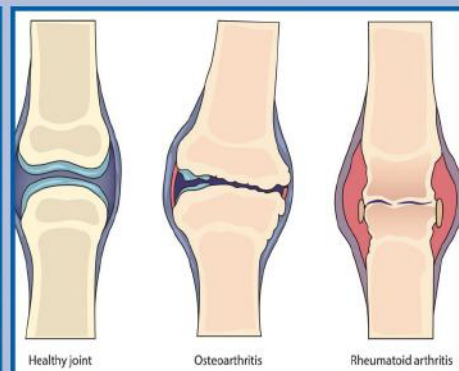
Osteoarthritis: This is the most common. It involves wear and tear damage to a joint's cartilage. Cartilage is a hard, slick coating on the ends of bones where they form a joint. It helps with frictionless joint motion. Its damage can result in bone grinding directly on bone. This causes pain and restricts movements.

Rheumatoid arthritis: It happens when the body's immune system attacks the lining of the joint capsule, a tough membrane that encloses all the joint parts. This lining becomes inflamed and swollen. This process eventually destroys cartilage and bone within the joint.

Symptoms and signs of arthritis

First, stiffness or reduced range of motion, i.e., how far you can move a joint. It causes joint pain. Secondly, swelling or inflammation where skin dislocation, sensitivity to touch around a joint, or a feeling of heat near the joints is experienced.

Some factors that raise the possibility of arthritis



First, tobacco use through smoking or in other ways increases the risk. Secondly, family histories where other members have arthritis are likely to have this. But more physical activity may lessen the possibility. Thirdly, there is the activity level, which means the more one is physically active less is the possibility. Fourthly, having autoimmune diseases or obesity, or any condition that affects one's joints, increases the risk of developing arthritis. Fifthly, some sections of people have a higher chance of having arthritis. People older than 50, athletes, particularly, who play contact sports, women, and people engaged in sitting work are more prone to suffer from arthritis.

Diagnosis and treatment

Examining body fluids, i.e., blood, urine, or joint fluid, in the laboratory can pinpoint the type of arthritis one has. Additionally, X-rays or CT scans or MRI or ultrasounds technology can determine cartilage loss, bone damage and bone spurs to track progression of the disease.

There is no treatment of arthritis. Doctors can manage one's symptoms only. Doctors prescribe some medicines, physical or occupational therapy or surgery in extreme cases.

Insulin resistance test can determine the early stage of Alzheimer's disease - a new study observes

Story 2

Alzheimer's has been a big problem for aged persons. Data shows that it grows with age, and it increases after age 65. About one in 20 people of 65 to 74 years suffer from Alzheimer's. Again, it is one in three for those 85 years or older. The researchers found that about 69 million people around the world are living with Alzheimer's disease or early-stage Alzheimer's disease.

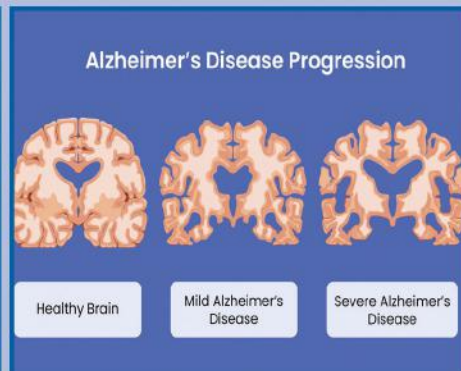
There is at present no tool for predicting how quickly the early stage of Alzheimer's disease will progress. But a new study reportedly has identified a simple blood test used to measure insulin resistance that may also help doctors determine which people with early-stage Alzheimer's disease are most likely to experience rapid cognitive decline.

What is the new observation?

The new study by the Neurology unit in the Department of Clinical and Experimental Sciences at the University of Brescia in Italy, observes that higher insulin resistance indicates quicker deterioration in cognitive decline. The result of the research was reportedly presented at the European Academy of Neurology Congress 2025.

Research methodology

The researchers analysed the medical records from 315 adults with an average age of 70 who did not have diabetes. Two hundred of the study participants had received biological confirmation that they had Alzheimer's disease. Then all the participants received an insulin resistance assessment using a test called the triglyceride-glucose (TyG) index. They were kept under observation with a clinical follow-up for three years. Why was TyG done? The Index is a validated marker of insulin resistance. This condition is seen in



prediabetes and fasting blood syndrome.

Observation of the research

It was observed that higher TyG index results predict quicker cognitive decline. The researchers found that those in the highest TyG index group experienced a quicker deterioration in cognitive decline than those with lower TyG index. Bianca Gumina, a senior member of the research team, was quoted as saying in Medical News Today, an online health magazine, "...Patients in this early phase with high TyG levels had fourfold increased risk of rapid cognitive decline compared to those with lower TyG levels.

Regarding the affordability of patients, Gumina also reportedly told, "The TyG index is a low-cost, widely available tool that could be easily integrated into routine clinical practice to flag patients at higher risk of rapid decline". So, by early detection of the patients, doctors could prioritize them for closer monitoring, lifestyle interventions, or even enrollment in clinical trials.

CSR Activities & Events of SERUM throughout July, 2025



July 14: Sri Sanjib Acharya at Thalassaemia Awareness Camp in association with Barrackpore Voluntary Blood Donors Welfare Society



July 24: Celebration of timeless legacy of Uttam Kumar



July 25: Sri Sanjib Acharya at Blood Donation Camp organised by Shatinagar Jiban Sathi Sangha

Half-yearly Meeting



July 5: For South Bihar



July 6: For North Bihar



July 12: For North East



July 13: For North 24pgs



July 13: For Hooghly



July 19: For Nadia & part Murshidabad



July 20: For Maldah HQ & part Murshidabad



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