



SERUM TIMES

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SERUM MEDICAL BULLETIN

From the desk of the Editor-in-Chief

Dear Readers/Doctors,

Hope everything is going well with you. July is typically known as the peak monsoon season. However, how much rainfall we will actually receive this year remains uncertain. The Meteorological Department has predicted that this year may experience El Niño conditions, with India expected to receive about 92% of its 10-year average rainfall. This could lead to various health hazards between July and September. We would like to highlight some important tips on how individuals can prepare themselves and stay healthy during such abnormal weather conditions.



El Niño years often disrupt global weather patterns. During this period, there is usually a rise in vector-borne diseases such as cholera, dengue fever, malaria, and the Zika virus, particularly in tropical regions like India. Secondly, water-borne diseases such as cholera and diarrhoeal illnesses may become more prevalent. Thirdly, vulnerable sections of society may face increased risks of malnutrition and food insecurity. Fourthly, hotter and drier weather conditions may lead to a higher incidence of respiratory illnesses. People should also remain alert to the possibility of heat waves during the El Niño period.

Recently, the Union Ministry of Health reported a significant reduction in out-of-pocket expenditure as a share of total health expenditure. It has decreased from 64% in 2013–14 to 43.4% in 2022–23. This is considered an indicator of improvement in the country's healthcare system. The government attributes this progress to the operationalisation of more than 1.8 lakh Ayushman Arogya Mandir wellness centres across the country.

A high alert has been issued in the Kozhikode district of Kerala after the Nipah virus was diagnosed in a 43-year-old man on June 11. According to the District Collector, 77 individuals have been identified as contacts of the patient and are being monitored. However, there is no need for undue concern at this stage.

In this issue, we feature two important topics. Story 1 focuses on Autonomic Neuropathy, a condition that has become a growing health concern. Story 2 discusses recent research on gestational diabetes, a form of diabetes that occurs during pregnancy. Although it usually lasts for a limited period, it can lead to several health complications for both mother and child in the future. We encourage you to read these stories carefully.

Stay safe and stay healthy.

With thanks.

Sanjib Acharya



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Autonomic Neuropathy: A Growing Health Concern

Story 1

Autonomic neuropathy (AN) is a group of symptoms rather than a specific disease. It occurs when there is damage to the nerves that control the body's automatic functions. These functions include blood pressure, heart rate, sweating, bowel and bladder emptying, and digestion. These nerves are part of the autonomic nervous system, which acts as the "autopilot" of the human body. AN involves damage to the nerves that carry information from the brain and spinal cord to various organs and systems, including the heart, blood vessels, bladder, intestines, sweat glands, and pupils.

Causes of AN: The most common cause of autonomic neuropathy is diabetes. However, it can also result from autoimmune diseases, infections, toxins, medications, and genetic disorders. First, prolonged high blood sugar levels and elevated fats in the blood can damage both the nerves and the small blood vessels that nourish them. An underactive thyroid may also contribute to peripheral nerve problems.

Second, autoimmune diseases can lead to AN when the body's immune system mistakenly attacks its own healthy nerve tissues. These conditions include Autoimmune Autonomic Ganglionopathy, Sjögren's syndrome, lupus, and Guillain-Barré syndrome.

Third, infections such as HIV/AIDS and Lyme disease can cause autonomic neuropathy. Botulism may also attack the nerves and lead to AN. Fourth, toxins and certain medications can contribute to AN. These include excessive alcohol consumption, heavy metal poisoning, and chemotherapy drugs.

Fifth, genetic and inherited disorders are responsible for some cases of AN. According to medical literature, inherited conditions such as familial dysautonomia and amyloidosis can lead to autonomic neuropathy. Sixth, certain medical conditions and injuries, including cancer, nerve trauma, spinal cord injury, and some neurodegenerative diseases, may also cause AN.

Symptoms of AN Vary Depending on the Nerves Affected

1. **Stomach and Intestinal Symptoms:** Common symptoms include constipation, diarrhoea, nausea after eating,



irregular bowel movements, swallowing difficulties, abdominal bloating, vomiting, and the presence of undigested food in vomit.

2. **Heart and Lung Symptoms:** Important symptoms include an abnormal heart rate or rhythm, a sudden drop in blood pressure causing dizziness upon standing, high blood pressure, and shortness of breath during physical activity or exercise.

3. **Urinary Symptoms:** Difficulty in starting urination, a feeling of incomplete bladder emptying, and urinary leakage are common signs of AN.

4. **Other Symptoms:** Other symptoms may include excessive sweating, heat intolerance, sexual dysfunction in both men and women, abnormal pupil reactions in one or both eyes, and unexplained weight loss.

Treatment of AN: Treatment depends on the underlying cause and the specific symptoms experienced by the patient. It may involve managing blood pressure, relieving pain, treating orthostatic hypotension, and addressing other associated complications. In some cases, surgical intervention may be necessary. Non-pharmacological treatments, including lifestyle modifications and supportive therapies, can also play an important role in managing the condition.

Gestational Diabetes Affects a Child's Health Even Before Birth, a New Study Observes

Story 2

Gestational diabetes is associated with temporary disturbances in glucose metabolism during pregnancy. It is a common condition among pregnant women. Although the condition may not last long, a new study conducted by researchers from Wroclaw Medical University and Wroclaw University of Science and Technology has found that the consequences of gestational diabetes may extend far beyond pregnancy itself. It may affect a child's health even before birth, increasing the risk of obesity, insulin resistance, and diabetes later in life.

The New Findings of the Research

Even today, metabolic diseases are generally considered a consequence of adult lifestyle choices. However, scientists are increasingly recognising the importance of the prenatal period as a source of these problems. An online medical journal quoted one of the researchers involved in the study as saying: "Fetal life is a crucial stage during which a child's metabolism is programmed for the decades ahead. Even at this early stage of development, elevated maternal glucose levels and altered metabolic parameters can affect the metabolic balance of the developing organism."

Why Does This Happen?

According to the lead researcher, Dr Liskuberka, as quoted by the journal, leptin and adiponectin serve as biomarkers of maternal and fetal metabolism. Persistently elevated leptin levels accompanied by reduced adiponectin concentrations create a metabolic environment that promotes obesity and disturbances in glucose homeostasis in both pregnant women and their children.

Scientists have been paying increasing attention to a phenomenon known as Metabolic Programming. This concept suggests that conditions present in the mother's body during pregnancy can influence the child's metabolism throughout life. Researchers place particular emphasis on the first 1,000 days of life, a period that extends from conception to approximately a child's second birthday.

How to Care for Women with Gestational Diabetes



Researchers believe that proper diagnosis and careful monitoring of gestational diabetes are important not only for the course of pregnancy but also for long-term health outcomes. Effective prevention of gestational diabetes is now considered not only the foundation of perinatal safety but also a key component of public health strategies aimed at benefiting future generations.

However, this is not a challenge that can be addressed by a single healthcare department alone.

Effective prevention requires collaboration among specialists from various disciplines, including diabetologists, gynaecologists, dietitians, physiotherapists, psychologists, and public health experts.

The Importance of the New Research

Researchers believe that caring for women with gestational diabetes represents a crucial first step in preventing lifestyle-related diseases at the population level.

As a result, perinatal care is evolving from a reactive model to a proactive strategy aimed at preventing diabetes, obesity, and other metabolic disorders in future generations.



CSR Activities & Events of SERUM throughout June, 2026

Half Yearly General Meeting, 2026



June 13: Nadia & Murshidabad



June 13: Birbhum & Burdhan



June 14: Jharkhand



June 14: Bankura & Purulia



June 14: Paschim Bardhaman



June 27: South 24 Pgs & Kolkata



June 27: Howrah



June 6: Sri Sanjib Acharya at Thalassaemia Awareness & Screening Camp at Basudevpur Binapani Club, Haldia



June 16: Sri Sanjib Acharya at Thalassaemia Awareness Camp at Bidhannagar Government High School



June 25: Celebration of Barsha Baran 2026 at SERUM Auditorium



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