

SERUM TIMES

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SERUM MEDICAL BULLETIN

From the desk of the Editor-in-Chief

Dear Readers/Doctors,

At the outset, I like to convey to you from the core of my heart the best wishes at the beginning of the New Year 2024. Hope you are all well and will remain well both mentally and physically this year.



The ST has discussed several winter season-related health problems in the last December issue. We all be very cautious to remain fit in the continuing winter season. In this issue, we have discussed a special health problem that is more intensified in the winter. This is asthma.

WHO considers it a major non-communicable disease that affects both children and adults. This is the most common chronic disease among children. It is a lung disease one's airways get narrowed and are blocked by excess mucus.

In 2023 2nd May, World Asthma Day was observed to combat several communicable diseases including, of course, asthma. One estimate of asthma prevalence in India has been 2.4% in adults aged greater than 15 years and between 4% and 20% in children. One can go through Story 2 of this issue for more detail about asthma.

In this issue, we are going to discuss several important matters relating to special diseases related to women, particularly, pregnant women. This is known as eclampsia. It is not very common (one in 2 to 3 thousand cases) in developed countries as people are more conscious about health than in developing countries. But in countries like India, it is not so uncommon.

Eclampsia is a condition that only occurs during pregnancy. It causes seizures, usually late in the pregnancy. According to a report in India incidence of eclampsia varies from 0.179 to 3.7%. Maternal mortality varies from 2.2% to 23% of all eclamptic women. The next story discusses the matter in detail.

Again, we wish you a very happy New Year 2024.

With best wishes

Sanjib Acharya

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Eclampsia, if early diagnosed, can be managed easily

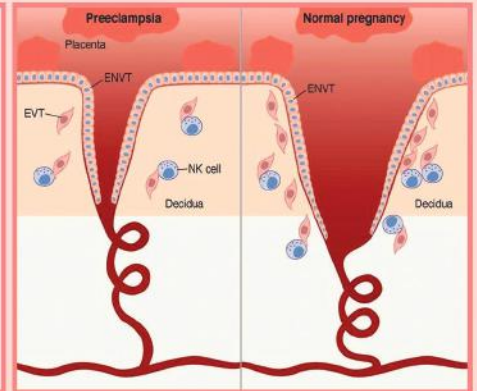
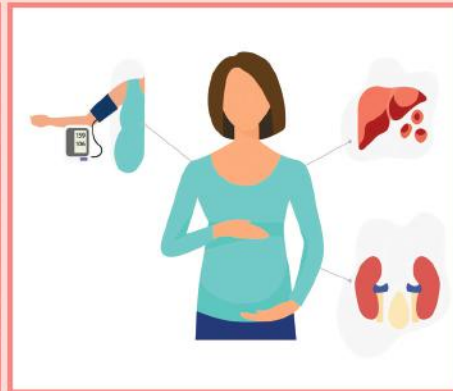
Eclampsia is a serious medical condition that affects women during pregnancy. It is commonly defined as the new onset of grand mal seizure activity and/or unexplained coma during pregnancy or postpartum in a woman with signs or symptoms of pre-eclampsia. It generally occurs during or after the 20th week of gestation or in the postpartum period. Actually, symptoms of it generally appear during pregnancy as a condition known as pre-eclampsia. If these are undetected it may be developed into eclampsia. This can create additional complications during pregnancy. So, eclampsia is the final stage of pre-eclampsia.

Why does eclampsia occur?

Researchers are yet to confirm the definitive cause of this. Each case is unique. Actually, some risk factors should be taken into consideration. Firstly, pregnancy history, most cases of eclampsia happen in the first pregnancy. Additionally, patients' age, i.e., over 35 of women have an increased risk. Furthermore, there may have been a genetic factor, i.e., family history is important. Moreover, obesity is also a factor. Lastly, patients with long-term high blood pressure are at high risk.

Some common symptoms of pre-eclampsia are as follow:

Severe headache and excessive weight gain during pregnancy. One estimate has been that it may be more than 2 pounds per week. Nausea, vomiting tendency, and stomach pain are also common symptoms of this. Other symptoms include swelling of hands, feet, and face. When the condition of the patients is severe then muscle pain and seizures are observed to them. So, any pregnant woman who feels these symptoms should immediately report to the concerned doctors.



Diagnostics testing

The first has been to test whether excess protein is there in the urine. That is whether it is 0.3g or over in the urine collected over 24 hours. If it is found yes then it may direct towards pre-eclampsia. Secondly, checking platelet levels by complete blood count method is also done for diagnosis. Other tests include kidney function tests, liver function tests, coagulation screens, 24-hour urine creatinine, and fetal or placental ultrasound.

Treatment

Treatment includes, mainly, four areas of the patients. To prevent any further convulsion is most important. Then doctors monitor the blood pressure of the patient. Other important steps are to deliver the baby as promptly as possible to reduce the complications of the patient and to monitor closely for the onset of multi-organ failure.

Major breakthrough in asthma treatment - no need to inhale steroid

Asthma is one of the most common respiratory diseases worldwide. Asthma patients suffer from breathlessness, chest tightness, and incessant cough. It causes airways in the lungs to become inflamed and narrow. It produces excess mucus that leads to breathing difficulties, chest tightness, wheezing, and coughing. Many patients are repeatedly attacked by asthma and that requires serious treatment. One estimate mentioned that about 30 crore people suffer from asthma around the world and around 3 to 5% of these have severe asthma.

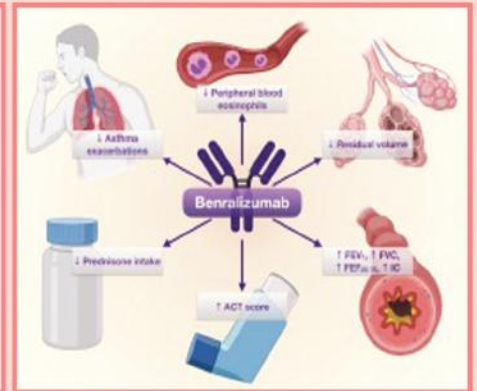
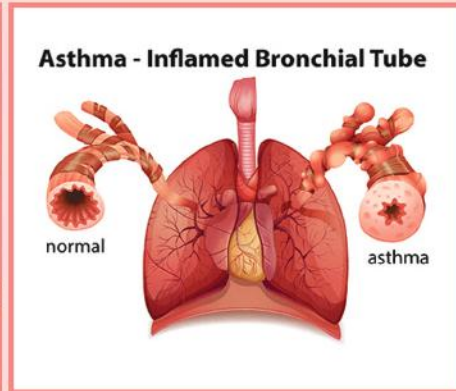
Doctors say that neglect of asthma may lead to respiratory disability and poor quality of life. Lack of oxygen in the body can harm other organs.

Recently a report quoting the Lancet has pointed out the major breakthrough in asthma treatment. A landmark study has shown that severe asthma can be controlled using biologic therapies, without the addition of regular high-dose inhaled steroids which can have significant side effects. The research was done by the Severe Asthma Centre at Guy's and St Thomas' Respiratory Medicine at King's College London under the leadership of Professor David Jackson.

Professor Jackson reportedly said, "Biological therapies such as benralizumab have revolutionized severe asthma care in many ways, and the results of this study show for the first time that steroid-related harm can be avoided for the majority of patients using this therapy."

The science of the discovery

Benralizumab is a biological therapy that reduces the number of inflammatory cells called eosinophil. This is produced in abnormal numbers in the airways of patients with severe asthma and is critically involved in the



development of asthma attacks.

Methodology of the research

Benralizumab is injected every four to eight weeks into each person suffering from asthma and is available in specialist NHS asthma centers. The study took place across 22 sites in four countries - the UK, France, Italy, and Germany. The 208 patients were randomly assigned to taper their high-dose inhaled steroid by varying amounts over 32 weeks, followed by a 16-week maintenance period.

Approximately 90% of patients experienced no worsening of asthma symptoms and remained free of any exacerbations throughout the 48-week study.

Asthma status in India

The recent Global Burden of Disease (GBD, 1990–2019) estimated the total burden of asthma in India as 34.3 million, which means 13.09% of the global burden.

Asthma accounted for 27.9% of disability-adjusted life years (DALYs) in the Indian population. On the whole, India has three times higher mortality and more than two times higher DALYs compared to the global proportion of asthma burden.



CSR Activities & Events of SERUM throughout December 2023

Annual General Meeting, 2023



Dec 24: North Bihar (Bhagalpur)

Dec 23: Purba Burdwan & Birbhum

Dec 23: Murshidabad & Nadia



Dec 18: North East (Agartala)

Dec 17: Hooghly

Dec 17: Barrackpore & Barasat

Dec 16: South Bihar



Dec 10: North Bengal

Dec 9: part Jharkhand & part Murshidabad

Dec 23: The Christmas celebration at Varsha.



Dec 23: Health & Thalassemia Awareness Camp organised by Goabagan Nabarun Athletic Club where Thalassemia Carrier Tests, BP, Blood Sugar, Blood Group & ECG were done.



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