

SERUM TIMES

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SERUM MEDICAL BULLETIN

From the desk of the Editor-in-Chief

Dear Doctors / Readers,

Hope you are well. We have entered into the rainy season. We must be prepared for facing dengue in the coming months. We have got some good health news too. Punjab has been able to reduce child and neonatal mortality rates to a great extent, as per 2020 survey reports, and achieved 18 deaths per 1000 live births, lower than the national average of 28. The under-5 mortality rate in Punjab has also reduced to 32 compared to the national average of 42. In the state neonatal mortality rate as per National Family Health Survey -5 stands at 22 against the national average of 42.



At the same time, we have some bad news too. The number of new diabetic patients has increased to 31 million in 2019-21, according to a recent survey. The highest prevalence of diabetes was found in Goa (26.4%), Puducherry, and Kerala (nearly 25%). It is reported that the survey pointed out the possibility of having a gloomier picture in the rural areas when the next survey on rural India will be completed.

In this issue, we are going to touch upon a growing problem of both aged and at times of not so aged persons. This is called Sensorineural Hearing loss or in common usage, we know hard of hearing. Hearing loss generally comes on gradually as one grows old. This is a common phenomenon and it is also called presbycusis. One report mentions that more than half of people older than 75 years of age have some age-related hearing loss. China records the highest number of people with hearing loss. A person usually can not get back hearing ability once lost in most cases. But definitely, it can be improved by following some ways.

How one hears?

The ear has three parts, outer ear, middle ear, and inner ear. Sound waves pass through the outer ear and cause the eardrum to vibrate. The eardrum and three small bones of the middle ear make the vibrations bigger as they travel to the inner ear. There the vibrations pass through fluid in a snail-shaped part of the inner ear, known as the cochlea. Attached to nerve cells in the cochlea are thousands of tiny hairs that help turn sound vibrations into electrical signals. The electrical signals are transmitted to the brain, the brain turns these signals into sound.

The next story will give us more information on this matter.

With best wishes

Sanjib Acharya

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Hearing loss increasing - it impacts both the health & productivity of the person

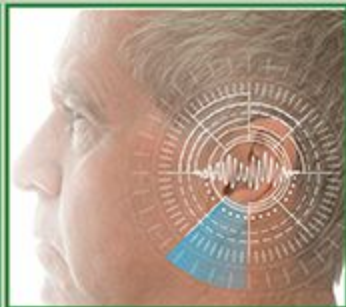
The WHO estimates that hearing loss costs countries an estimated \$750 to 790 billion annually in direct health matters and loss of productivity. Globally its burden increased from 17.2% in 2008 to 187% in 2018. So, need to be cautious about it. Hearing loss (HL) may affect at any age. But its causes vary.

Some common causes of HL

First is damage to the inner ear due to aging and loud noise. This can cause wear and tear on the hairs or nerve cells in the cochlea. Secondly, the build-up of earwax can block the ear canal. Thirdly ear infections or usual bone growths or tumours can be responsible for HL. Fourthly, a ruptured eardrum also known as tympanic membrane perforation can cause it. This happens due to loud blasts of noise and sudden changes in pressure poke eardrums with objects and it may cause infection.

There are some risk factors

To start with, aging has been the most important of all. The inner ear breaks down as age increases. Next is the loud noise that can damage the cells of the inner ear. But the damage can happen over time as well. In addition, heredity has been a great factor. Noises on the job. Working amidst constant loud noise can cause HL gradually. The construction and factory workers are more prone to this. Following that, noise at play can be a reason. Exposure to explosive noises from firearms, jet-engines can gradually damage hearing power. Experience shows that some medicines including



antibiotic gentamicin and some other medicines can be a cause of HL. Furthermore, some illnesses like meningitis that cause high fever can harm the cochlea.

At the same time as age goes up health problems like diabetes or high blood pressure can contribute to HL. Ear infections caused by viruses, bacteria, a bad heart condition stroke, or brain injury may also cause HL.

Some impacts on persons with HL

Older people are depressed and frustrated as many people avoid them. Older people are mistakenly thought to be confused, unresponsive, or uncooperative as they cannot hear well. So social isolation and loneliness impact old people in various ways. Movement of those persons is restricted; they cannot drive and move on the road safely. But there are some devices that can help persons with hearing loss.

Regular and proper sleep reduces mortality by 39%

People talk about quality food, and regular exercise as the most important factors for healthy and long life. But most of us are not always consider the importance of regular and proper sleep. It is reported in Hindustan Times on June 6, 2023, a new study has observed that a person should maintain a regular bedtime and wake time along with receiving enough sleep.

Organizations like the American Academy of Sleep Medicine and Sleep Research Academy have already recommended at least seven hours of sleep. Otherwise, key health outcomes like cardiovascular disease, depression, pain, diabetes, etc., may arise.

The newness of the recent study

The study observed that adults with a regular sleep schedule and sufficient sleep duration had a 39% lower mortality risk than adults with irregular and improper sleep schedules. Joon Chung, a leader of the study and a post-doctoral fellow at Harvard Medical School reportedly said that their study had found that objectively regular sleepers tended to live for more days, outlive objectively irregular sleepers regardless of major sleep disorders. That means men with regular and proper sleep habits have higher longevity than those who do not have regular and proper sleep habits unless the former men have any major type of sleep disorders.

Researchers' suggestion

The scholars suggested that the common people should be made aware of the huge health benefits of



regular and proper sleep habits through the arrangements of public conversations. Several organizations mentioned above recommend that an adult should sleep seven hours or more per night for good health. But sleep requires adequate duration, appropriate timing, good quality, regularity, and absence of sleep disturbances.

Methodology of the study

The researchers analysed the data from the Multi-Ethnic Study of Atherosclerosis Sleep Study. The total number of participants was 1,759. Their sleep schedules were followed for a median of seven years. There were 176 deaths during the study period.

An important digression

Scientists have to study more about sleep. Many experts consider sleep is not simply a lack of consciousness. It is a rhythmic cycle of distinct neural patterns. In this regard, a report points out that fewer than 50 of the nearly 60,000 vertebrate species have been tested for all of the criteria that define sleep. Of those some do not meet the criteria for sleep at any time of their lives and others appear able to greatly reduce or go without sleep for long periods of time.

CSR Activities & Events of SERUM throughout June, 2023

Half-yearly Meeting



Jun 3: For Jharkhand was held at Asansol Inn



Jun 3: For Bankura & Purulia was held at Asansol Inn



Jun 3: For West Burdwan was held at Asansol Inn



Jun 4: For South Bihar was held at Hotel Samrat International, Patna



Jun 10: For Malda (part of Murshidabad & part of Jharkhand)



Jun 11: For North Bengal & Lower Assam



Jun 18: For North 24Pgs was held at Jibanpur Vanaprastha Village



Jun 18: For Hooghly was held at Rupashi Restaurant, Serampore



Jun 24: For North East was held at Welcome Palace, Agartala



Jun 25: For Nadia & part of Murshidabad was held at Hotel Haveli



Jun 25: For Burdwan & Birbhum held at Hotel Neelam



Jun 8: Sri Sanjib Acharya was felicitated with a memento by Smt. Aparajita Saha, Sect., Chanda Chabi



Jun 17: Jeeban Debata Rath organised by SERUM Group in different parts of Kolkata



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SERUM Group