



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Tuesday 2021105

Active Covid cases

Active Covid cases in country lowest in 200 days (The Tribune: 2021105)

<https://www.tribuneindia.com/news/coronavirus/active-covid-cases-in-country-lowest-in-200-days-319974>

The national recovery rate was recorded at 97.89 per cent, the highest since March 2020

Daily cases of coronavirus in the country remained below 30,000 for the tenth straight day with 20,799 fresh infections recorded in a single day, while the active cases declined to 2,64,458, the lowest in 200 days, according to the Union Health Ministry data updated on Monday.

With the fresh cases, India's total tally of Covid cases rose to 3,38,34,702, while the death toll climbed to 4,48,997 with 180 fresh fatalities, according to the data updated at 8 am.

The active cases comprise 0.78 per cent of the total infections, the lowest since March 2020, while the national Covid recovery rate was recorded at 97.89 per cent, the highest since March 2020, the ministry said.

A decrease of 6,099 cases has been recorded in the active Covid caseload in a span of 24 hours.

The 180 new fatalities include 74 from Kerala and 41 from Maharashtra.

A total of 4,48,997 deaths have been reported so far in the country, including 1,39,207 from Maharashtra, 37,819 from Karnataka, 35,650 from Tamil Nadu, 25,377 from Kerala, 25,088 from Delhi, 22,894 from Uttar Pradesh and 18,825 from West Bengal. PTI

Vaccine

Needleless three-dose Zydus vaccine priced at Rs 1,900; govt still negotiating (The Tribune: 2021105)

<https://www.tribuneindia.com/news/coronavirus/needleless-three-dose-zydus-vaccine-priced-at-rs-1-900-govt-still-negotiating-319774>

Needleless three-dose Zydus vaccine priced at Rs 1,900; govt still negotiating

Zydus Cadila is learnt to have proposed a price of Rs 1,900 for its three-dose vaccine ZyCoV-D that can be given to those above 12 years of age even as the Centre is negotiating with the pharma company to bring down the rate. Photo for representation only.

Zydus Cadila is learnt to have proposed a price of Rs 1,900 for its three-dose vaccine ZyCoV-D that can be given to those above 12 years of age even as the Centre is negotiating with the pharma company to bring down the rate.

A final decision on the price of the indigenously developed and world's first DNA-based needle-free Covid-19 vaccine was likely to be taken this week, sources said. The government had on Thursday said the vaccine would be introduced in the nationwide anti-Covid vaccination drive shortly.

“The company has proposed a price of Rs 1,900 (inclusive of taxes) for its three-dose jab. Negotiations are on. The company has been asked to reconsider all the aspects regarding the cost of the vaccine. A final decision on the price is likely to be taken this week,” a source said. Another source said the ZyCoV-D had to be differently priced than Covaxin and Covishield as, apart from being a three-dose vaccine, there was a needle-free jet injector used for administering the vaccine that costs Rs 30,000. That jet injector can be used for administering around 20,000 doses. The vaccine is to be given on days zero, 28 and 56.

Sources said around three rounds of meetings had taken place so far between the Centre and the company, the last one on Thursday.

The Health Ministry is also waiting for recommendations from the National Technical Advisory Group on Immunisation (NTAGI) for introducing ZyCoV-D in the inoculation drive and prioritising beneficiaries focusing on those aged 12-18 years with comorbidities.

The NTAGI will provide the protocol and framework for the introduction of this vaccine, an official source said.

Union Health Secretary Rajesh Bhushan said the government was in conversation with the manufacturers. “Since this is a three-dose vaccine and comes with a needleless delivery system, it would have a differential pricing than the existing vaccines being used in the Covid vaccination programme,” he said.

Heart inflammation rates higher after Moderna Covid-19 vaccine

Heart inflammation rates higher after Moderna Covid-19 vaccine: Canada data(The Tribune: 2021105)

<https://www.tribuneindia.com/news/coronavirus/heart-inflammation-rates-higher-after-moderna-covid-19-vaccine-canada-data-319167>

The data also indicates heart inflammation occurs more often in adolescents and adults under 30 years of age, and more often in males

Heart inflammation rates higher after Moderna Covid-19 vaccine: Canada data

Photo for representational purpose only. iStock

Canadian health officials said on Friday data suggests reported cases of rare heart inflammation were relatively higher after Moderna's COVID-19 vaccine compared with the Pfizer/BioNTech shots .

The data also indicated heart inflammation occurs more often in adolescents and adults under 30 years of age, and more often in males.

The statement from the Public Health Agency of Canada said majority of the affected individuals experienced relatively mild illness and recovered qu

The risk of cardiac complications, including heart inflammation, has been shown to be substantially increased following COVID-19 infections, with the risks higher after the infection than after vaccination, according to the statement.

The benefits of mRNA shots in preventing COVID-19 continue to outweigh the risks, regulators in the United States, EU and the World Health Organization have said. Reuters

Nobel in medicine

Discovery of touch, temperature receptors gets Nobel in medicine (Hindustan Times: 2021105)

<https://schoolepaper.hindustantimes.com/Home/ArticleView>



David Julius, left, and Ardem Patapoutian are the winners of the 2021 Nobel Prize in Medicine. Their work focused on the field of somatosensation, that is the ability of specialized organs such as eyes, ears and skin to see, hear and feel. REUTERS

Associated Press

STOCKHOLM : Two US-based scientists were awarded the Nobel Prize in physiology or medicine on Monday for their discovery of the receptors that allow humans to feel temperature and touch.

David Julius and Ardem Patapoutian focused their work on the field of somatosensation, that is the ability of specialised organs such as eyes, ears and skin to see, hear and feel.

“This really unlocks one of the secrets of nature,” said Thomas Perlmann, secretary-general of the Nobel Committee, in announcing the winners.

“It’s actually something that is crucial for our survival, so it’s a very important and profound discovery.” The committee said Julius, 65, used capsaicin, the active component in chili peppers, to identify the nerve sensors that allow the skin to respond to heat.

Patapoutian found separate pressure-sensitive sensors in cells that respond to mechanical stimulation, it said. The pair shared the prestigious Kavli Award for Neuroscience last year.

“Imagine that you’re walking barefoot across a field on this summer’s morning,” said Patrik Ernfors of the Nobel Committee. “You can feel the warmth of the sun, the coolness of the morning dew, a caressing summer breeze and the fine texture of blades of grass underneath your feet. These impressions of temperature, touch and movement are feelings relying on somatosensation.”

“Such information continuously flows from the skin and other deep tissues and connects us with the external and internal world. It is also essential for tasks that we perform effortlessly and without much thought,” said Ernfors.

Perlmann said he managed to get hold of both of the winners before the announcement.

“I (...) only had a few minutes to talk to them, but they were incredibly happy,” he said. “And as far as I could tell they were very surprised and a little bit shocked, maybe.” Last year’s prize went to three scientists who discovered the liver-ravaging hepatitis C virus, a breakthrough that led to cures for the deadly disease and tests to keep the scourge from spreading through blood banks.

The prestigious award comes with a gold medal and 10 million Swedish kronor (over \$1.14 million). The prize money comes from a bequest left by the prize’s creator, Swedish inventor Alfred Nobel, who died in 1895.

Active Cases (The Asian Age: 2021105)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=15880607>

Covid: India sees 20,799 cases, active cases lowest in 200 days

AGE CORRESPONDENT
NEW DELHI, OCT 4

Daily cases of coronavirus in India remained below 30,000 for the 10th straight day with 20,799 fresh infections recorded in a single day, while the active cases declined to 2,64,458, the lowest in 200 days. With the fresh cases, the country’s total tally of Covid-19 cases rose to 3,38,34,702, while the death toll climbed to 4,48,997 with 180 fresh fatalities in the last 24 hours.

The new fatalities include 74 from Kerala and 41 from Maharashtra. Of the total deaths across the country, 1,39,207 are from Maharashtra, 37,819 from Karnataka, 35,650 from Tamil Nadu, 25,377 from Kerala and 25,088 from Delhi, 22,894 from UP and 18,825 from West Bengal.

The active cases comprise 0.78 per cent of the total infections, the lowest since March 2020, while

▶ **THE ACTIVE** cases comprise 0.78 per cent of the total infections, the lowest since March 2020, while the national Covid-19 recovery rate was recorded at 97.89%, the highest since March 2020. There has been a decrease of 6,099 cases in the same time span.

the national Covid-19 recovery rate was recorded at 97.89 per cent, the highest since March 2020. There has been a decrease of 6,099 cases in the same time span.

According to the Union health ministry, 9,91,676 tests were conducted on Sunday taking the total cumulative tests conducted so far for detection of Covid-19 in the country to 57,42,52,400. The daily positivity rate, recorded at 2.10 per cent, has been less than three per cent for last 35 days. The weekly positivity recorded at 1.63 per

cent has been below three per cent for the last 101 days.

The ministry said that the number of people who have recuperated from the disease surged to 3,31,21,247, while the case fatality rate was recorded at 1.33 per cent. It said that the cumulative doses administered in the country so far under the nationwide Covid-19 vaccination drive has exceeded 90.79 crore.

The country’s coronavirus tally had crossed the 20-lakh mark on August 7, 2020, 30 lakh on August 23, 40 lakh on September 5 and 50 lakh on September 16. It went past 60 lakh on September 28, 70 lakh on October 11, crossed 80 lakh on October 29, 90 lakh on November 20 and surpassed the one-crore mark on December 19. India crossed the grim milestone of two crore on May 4 and three crore on June 23.

Post-recovery, many COVID-19 patients report breathlessness

Post-recovery, many COVID-19 patients report breathlessness, rapid heartbeats or palpitations, says expert (The Hindu: 2021105)

<https://www.thehindu.com/sci-tech/health/covid-19-post-recovery-many-patients-report-breathlessness-rapid-heartbeats-or-palpitations/article36803722.ece>

“Post-COVID-19 infection, there is an increased tendency of clot-formation which can lead to heart attack and brain attack,” says Dr. Rakesh Rai Sapra, director cardiology, QRG Hospital, Faridabad.

Pay attention to that “I am still feeling ill inside signal,” say doctors. It is your body asking you to be careful, warns Rakesh Rai Sapra, director cardiology, QRG Hospital, Faridabad, who explained that after recovering from COVID-19 many patients still did not experience full recovery and complained about feeling exhausted following little physical activity.

“If patients continue to experience shortness of breath, rapid heartbeats, or palpitations they should immediately consult their doctor,” he said.

“It's true that there has been a significant rise of patients post COVID-19 infection reporting breathlessness and rapid heartbeats or palpitations. Post-COVID-19 infection, there is an increased tendency of clot-formation which can lead to heart attack and brain attack [brain stroke]. Such patients are more prone to developing clots in their hands or legs which is primarily due to the illness. This tendency is not lifelong,” Dr. Sapra said.

The doctor added that the tendency to form clots was at its maximum during illness and a period of two months afterwards.

“Besides, for patients with other illnesses like diabetes or kidney-related ailments, we undertake a test called D-dimer and if the results are significantly higher (2 to 3 times the normal range), blood thinners are prescribed. Because the lungs get involved in the COVID patients there is a compromise of oxygen in their body and the recovery takes time. We recommend such patients not to increase their physical activity once they have recovered from the illness but gradually increase their physical activity. Enhanced physical activity will lead to compromise of oxygen in the body leading to emergency situations,” explained Dr. Sapra.

Cardiac deaths

He added that of late there had also been a spurt in sudden cardiac deaths among the youngsters and said that the primary reasons for this new trend affecting our productive age group were smoking, drug substance abuse, undue mental stress and unwanted physical activity.

“A sudden cardiac arrest happens after a heart attack when a clot disrupts the blood flow to the heart. The region where the heart does not receive blood supply starts behaving abnormally. The blood pressure drops down drastically and thus puts the person at risk of death. Smoking

leads to the development of plaque in the artery. If the plaque ruptures, the cholesterol gets exposed and develops clots and this leads to heart attack,” he said.

The lungs are the organs most affected by COVID-19 and speaking about how the infection affects the inner surfaces of veins and arteries, Col. Vijay Dutta, senior consultant-Internal Medicine, Indian Spinal Injuries Centre, said that this process could cause blood vessel inflammation and hamper the functioning of the heart.

“Many people have developed cardiovascular diseases due to this and are going for a pacemaker implantation procedure. These complications have also led to swelling of heart muscles, leading to pump failure also. This is causing sudden death due to heart failure. In some cases, blood pressure is also getting dropped,” he said.

Doctors say that due to cardiac failures, the need for heart replacement or transplant has come up. In many cases, where the heart is not working due to respiratory failure or crippled lung or heart, they are requiring pacemakers. The heart of many people has become so dysfunctional that it is working only 15-20%; such people are facing breathlessness leading to medical therapy failure, even at a young age.

“So, they are only left with a cardiac transplant option in order to survive. This problem is coming in every age group as COVID doesn’t discriminate. COVID is affecting even newborns in the mother’s womb or uterus and it remains with the newborns for a long time,” he added while stating that cardiac deaths in COVID-19 patients were not uncommon and that it accounted for about 10-15% of deaths in people suffering from moderate to severe symptoms.

Rajpal Singh, director-Interventional Cardiology & Heart Failure, Fortis Hospitals, Bangaluru, said that mechanisms leading to sudden cardiac attacks in patients were speculated to occur because of thrombosis in the heart resulting in heart attacks and therefore heart rhythm abnormalities.

It could also be because of inflammation of the heart muscle, known as myocarditis, or due to pulmonary embolism, thrombosis in the arteries cutting off supply to the lungs. Following this, the recommendation of blood thinners is mandatory in patients with significant COVID-19 illnesses and/or in recovery from the same.

“It was initially believed that COVID illness is self-limiting and so is the cardiac damage but according to a few studies, up to 70% of COVID patients MRI’s show long-term inflammation and scarring in the heart, predisposing people to sudden deaths either in the form of slower heart rhythms or faster heart rhythms (ventricular castellation). Therefore, it is advisable for COVID patients to see a cardiologist, have an echocardiogram, and get cardiac troponin and pro-BNP levels checked. A 24-hour call monitoring is also recommended. A holistic approach is needed for both acute as well as long-term cases,” Dr. Singh said.

He added that higher presence of conventional practices such as smoking, hypertension, diabetes etc, significantly increase the risks of sudden cardiac death and needed to be addressed in the same setting as well as the management as COVID-19 illness

Gaming disorder

Gaming disorder increases during pandemic(The Hindu:2021105)

<https://www.thehindu.com/sci-tech/health/gaming-disorder-increases-during-pandemic/article36812568.ece>

Psychiatrists are rooting for awareness programmes and digital fasting.

Dangers go beyond the monetary motivations of online gambling

Anand*, a jovial extroverted 15-year-old in Bengaluru, got a personal smartphone for the first time last year when schools were closed due to the COVID-19 pandemic and online classes began. Within six months, he was on the phone for more than seven hours each day, not for classes but rather to binge on online games.

Worried about the sudden behaviour changes in their teenager — insomnia, withdrawal from social contacts, academic failure, and extreme anger and irritability — his parents took him to the National Institute of Mental Health and Neuro Sciences' aptly named SHUT clinic, which stands for the Service for Healthy Use of Technology. Their son was diagnosed with gaming addiction, a disorder that is quickly growing as the pandemic spurred an increased use of Internet devices

“We used to get maybe two-three cases a week. Now, we are seeing about 15 cases, almost all of whom are adolescents brought in by their parents. Our research shows that gaming addictions are present in adults as well, but they are not taking it seriously yet,” said SHUT clinic coordinator Manoj Sharma, a clinical psychology Professor at NIMHANS.

According to the All India Gaming Federation, India's online gaming industry is expected to be worth ₹15,500 crore by 2023. A 2019 survey by the U.S.-based Limelight Networks found that India had the second largest number of gamers after South Korea, and while time spent online is still not as high as in other countries, it found that almost a quarter of adult Indian gamers had missed work while playing games.

The World Health Organization categorised gaming disorder as a mental health condition in 2018, but as the pandemic increased screen time across age groups, concerns have been growing. Last month, China limited gamers under 18 years to just three hours of online games per week, during specified times, and made the industry responsible for enforcing the restriction.

Explained | Why and how China is drastically limiting online gaming for under 18s

In India, legal focus has been on recent laws in the southern States seeking to ban online games such as rummy, poker or even fantasy sports which offer prize money or financial stakes. Last week, the Kerala High Court quashed such a law in the State, accepting the industry's stance that, as games of skill rather than chance, they should not trigger bans on gambling. However, worried parents, psychiatrists and mental health advocates warn that the dangers go well beyond monetary motivations.

“We need to look at gaming addictions beyond the financial aspects of gambling. That is only one kind of harm. Ultimately, we have seen gaming addictions cause physical, social and emotional damages, impairing sleep, appetites, careers and social lives,” says Samir Parikh, a psychiatrist who heads the mental health department at Fortis Healthcare.

NIMHANS' Dr Sharma and fellow researchers published a case study in the Industrial Psychiatry Journal last year illustrating the “pathways of migration from gaming to gambling”. They found that a 14 year old addicted to online games without monetary rewards later became addicted to online poker with financial stakes in his early 20s. “Individuals who played more social casino games (online games where you do not either bet or win or lose real money) and won occasionally, usually developed a craving and urge for betting real money in the anticipation of winning,” said the paper.

A Delhi-based NGO named the Distress Management Collective documented other ways in which online gaming could lead to financial distress. “For a poor family, even the money needed to recharge a mobile phone to feed a gaming addiction can bankrupt a family. We have found so many cases of young people who stole money, borrowed money, failed exams, even committed suicide because of this,” said the NGO's head Deepa Joseph, who filed a PIL in the Delhi High Court in July, appealing for government policy to regulate the industry. “There is a big mafia behind online games, but they are making profits from the distress of young people,” she added.

Psychiatrists recommend that as a bare minimum, statutory warnings and mandatory breaks should be enforced to prevent binge gaming. “Among those who are just beginning excessive use, enforcing breaks after a stipulated time will improve control and prevent bingeing. But among those already addicted, it may not help, as they will just log on a different platform or using a different user name,” said Dr. Sharma. Media literacy in schools and digital fasting among families are also important steps to combat the disorder, he added.

Severe disease

On vaccines for pre-teens, when severe disease is rare(The Hindu:2021105)

<https://www.thehindu.com/sci-tech/health/on-vaccines-for-pre-teens-when-severe-disease-is-rare/article36794738.ece>

Going by past experience, the FDA might greenlight the vaccine for young children in a matter of weeks. The company expects to submit data of children 2–4 years and 6 months to 1 year by the end of the year.

Pfizer has submitted to the FDA Phase 2/3 trial data of mRNA vaccine on children 5–11 years for initial review. A formal submission to request for emergency use authorisation is expected in the coming weeks.

On September 20, Pfizer released details of the trial that showed the vaccine was safe and generated a “robust” antibody response in young children. Going by

Molnupiravir, Merck’s new drug to treat COVID-19

Explained | Molnupiravir, Merck’s new drug to treat COVID-19(The Hindu:2021105)

<https://www.thehindu.com/news/national/explained-molnupiravir-mercks-new-drug-to-treat-covid-19/article36788711.ece>

An experimental COVID-19 treatment pill called molnupiravir being developed by Merck & Co. Inc. and Ridgeback Biotherapeutics LP, is seen in this undated handout photo released by Merck & Co. Inc. | Photo Credit: Reuters

Data shows drug halves chances of hospitalisation in patients with mild to moderate disease

Why is there much excitement about molnupiravir, the investigational new drug for COVID-19?

Pharmaceutical major Merck and Ridgeback Biotherapeutics announced via a press release on October 1 the early results from Phase-3 trials that its anti-viral drug molnupiravir halved the chances of hospitalisation in COVID-19 patients with mild or moderate disease.

Placebo trials involve testing a drug on thousands of people, in which some of them get the drug and some — who are in a placebo group — do not. In the placebo arm, 53 patients of 14% were either hospitalised or had died, whereas in the group that got the drug, 28 — or 7.3% — were hospitalised or succumbed to the infection.

After 29 days of monitoring, no deaths were reported in patients who received molnupiravir, as compared to eight deaths in those who received placebo.

Several noted clinicians have said that these are promising results, and what is particularly encouraging is that molnupiravir is a pill, unlike other drugs — with similar efficacy — used in COVID-19 treatment, which needs to be administered intravenously.

Gilead Sciences, the makers of Remdesivir, too have recently reported better data, compared to last year, on the efficacy of their treatment in mild to moderate COVID-19 patients, but it continues to be an intravenous medicine.

Is molnupiravir a breakthrough for COVID-19 treatment?

While the hospitalisation-avoidance rates are reassuring, there is still much that is unknown about molnupiravir. Complete phase-3 trial data is pending, a publication in a peer-reviewed medical journal is awaited that will explain the process of the trial in the degree of detail that will inspire more confidence among practitioners and drug authorities everywhere.

The company will soon be submitting data to the United States Food and Drugs Administration for a review, after which the drug may be approved for emergency use authorisation. So far, it being a drug that can be administered as pills as part of a five-day regimen is its biggest strength.

The drug has so far been tested only in patients with mild-to-moderate COVID-19, had started treatment within five days of testing positive and had at least one risk factor that increased their risk for severe disease. These include obesity, older age (>60 years), diabetes mellitus and heart disease.

Another positive factor is that recruitment for the phase-3 trial, that originally envisaged recruiting 1,500 patients for testing the drug's potency, was halted early by an independent data monitoring committee because the data appeared so encouraging that it would be unethical to delay making the drug more widely available.

About 40% of participants had their genomes sequenced to detect the specific variant they were affiliated by and molnupiravir reportedly demonstrated “consistent efficacy” across viral variants Gamma, Delta and Mu.

Adverse events in molnupiravir and placebo groups were 35% and 40%, respectively and incidence of drug-related adverse events were 12% and 11%, respectively. Fewer subjects discontinued study therapy due to an adverse event in the molnupiravir group (1.3%), compared to the placebo group (3.4%).

How does molnupiravir work?

The company name for molnupiravir is 'EIDD 2801' the 'E' indicating it was developed at Emory University. Antiviral drugs, and this includes the much-in-demand Remdesivir, work by inhibiting the process by which the virus replicates. In the case of molnupiravir, when tested on cultured cells, it works by altering critical enzymes that are necessary for the virus to begin replicating in the body's host cells.

A key challenge has been that many such antivirals, following a similar mechanism, are not effective as oral pills. However, the Merck pill reportedly appears to have overcome this barrier and adds to its promise as a 'game-changing' pill amid the COVID-19 crisis.

Dean Li, Merck's head of research and development, told medical news website Statnews that the name molnupiravir was also a tangential reference to the weapon of Thor, who is one of the Avengers and a fictional hero of the Marvel Comics Universe. Thor's hammer is called Mjolnir. "This is a hammer against SARS-CoV-2 regardless of the variant," said Li. The suffix '-avir' is a common one used for anti-viral drugs

What are the next steps for the drug?

Presumably on the back of encouraging data from Phase-1 and Phase-2 trials, Merck has reportedly begun production of the drug in large numbers. In its statement, it said it expected to produce 10 million courses of treatment by the end of 2021, with more doses expected to be produced in 2022.

Earlier this year, Merck entered into a procurement agreement with the U.S. government, under which Merck will supply approximately 1.7 million courses of molnupiravir to the U.S. government, upon EUA or approval from the U.S. FDA.

The New York Times reports that a course of treatment for the drug could cost \$700 (₹50,000 approx.). This is cheaper than the monoclonal antibody therapy, which while being more effective, is a more involved treatment and is not as convenient as popping a pill. Though vaccine availability has improved, hundreds continue to die every day — some despite vaccination — and so an effective drug continues to be very much in demand.

Additionally, Merck has entered into supply and purchase agreements for molnupiravir with other governments worldwide, pending regulatory authorisation, and is currently in discussions with other governments. It is also in talks with generic drug manufacturing companies in 100 low and middle companies to accelerate production.

molnupiravir is also being evaluated for whether it can help prevent transmission of virus, or as prophylaxis, in MOVE-AHEAD, a global, multicentre, randomised, double-blind, placebo-controlled Phase-3 study, which is evaluating the efficacy and safety of molnupiravir in preventing the spread

BP, cholesterol control

BP, cholesterol control key for Type1 diabetics, says study(The Hindu:2021105)

<https://www.thehindu.com/sci-tech/health/bp-cholesterol-control-key-for-type1-diabetics-says-study/article36783272.ece>

India is home to more than 95,000 children with Type 1 diabetes | Photo Credit: Getty Images

Clinical parameters play key role with blood sugar control in long term survival, says first pan-India study

Good control of not only blood sugar, but also blood pressure and cholesterol is essential for survival and a good quality of life among Type 1 diabetics (T1D), according to a pan India study of long-term survivors with the condition.

A first-of-its kind report of long term survivors of T1D from India, a multi-centric study was published in the peer-reviewed journal Diabetes Technology and Therapeutics. Comparing survivors for over 40 years with people who did not survive up to 40 years, the researchers found that “survivors had better glycemic and blood pressure control, more favourable lipid profiles and lower prevalence of complications compared to non-survivors.”

However, they added that “there could be other protective factors as well, which merit further studies”. The survivors also had better height and weight parameters compared to the other group.

Individuals with T1D have increased morbidity and excess premature mortality compared to those without diabetes and their life expectancy is reduced by an estimated 15-20 years, even with the life-saving insulin to their assistance. However, long-term survival with T1D is possible and 40% of European individuals with T1D are reported to survive for more than 40 years with life expectancy now extending almost up to 70 years, the paper added. In fact, two patients in the study have lived over 70 years with T1D, said V. Mohan, of Dr. Mohan’s Diabetes Specialties Centre (DMDSC), and lead author.

A total of 127 participants with T1D were included in the study which comprised of 76 survivors of over 40 years duration and 51 non-survivors. Of the 76 survivors, 59 were from DMDSC, the coordinating centre in Chennai, and 17 from other participating centres (5 from the Madras Medical College, Chennai; 5 from Ahmedabad, 3 from Delhi, 2 from Kolkata and 1 each from Mumbai and Nagpur). Among the 76 T1D survivors, 58 individuals had survived 40-49 years with diabetes, 12 individuals 50-59 years and 6 individuals, over 60 years with diabetes.

India is home to more than 95,000 children with T1D, reported to be the highest in the world, according to the 9th International Diabetes Federation Atlas, the study points out, but most reports on long term survival were from the U.S. and Europe and none from India. Given that life expectancy in India is in general lower, the subject definitely needs attention, the authors argued.

While the study showed a significant differentiation in blood glucose, blood pressure and cholesterol levels determining better survival and quality of life, Dr. Mohan said it was interesting that many of the long term survivors in the study were not prescribed intensive insulin therapy in the first 10 years or so after diagnosis, and they still seemed to be protected from complications. This definitely calls for more studies, he added.

Hypertension

Hypertension higher among educated, urban residents: Study(The Hindu:2021105) H

<https://www.thehindu.com/news/cities/bangalore/hypertension-higher-among-educated-urban-residents-study/article36770114.ec>

The study found that prevalence of hypertension increased with age, and this was higher for females (43.7%) than for males (39.6%). | Photo Credit: Getty Images

About 29.9% of participants in study had uncontrolled hypertension

With hypertension a major risk factor for cardiovascular diseases, a study revealed that approximately 42% of adults aged 45 years and above, and their spouses had hypertension, and prevalence was found to be higher among richer, more educated individuals residing in urban areas across India.

Research conducted by experts of International Institute for Population Sciences, Mumbai, and others, published in 'PLOS Medicine' on August 24, 2021, estimated that 29.9% of the people who participated in the study had uncontrolled hypertension, and the prevalence was higher among richer and better educated groups.

“Awareness, treatment, and control (ATC) of hypertension in adults aged 45 years and above, and their spouses in India: A nationally representative cross-sectional study” noted that richer individuals with higher monthly per capita consumption expenditure (MPCE) were more likely

to have hypertension. Prevalence was estimated to increase from 37% among the least educated to 51.2% among the most educated. Prevalence was higher in urban areas (51.8%) than in rural areas (37.8%). It was also higher among those not working.

64,427 participants

The study, which is based on a sample of 64,427 participants (58% female and 70% rural dwellers), conducted by Sanjay K. Mohanty, Sarang P. Pedgaonkar, Ashish Kumar Upadhyay, Fabrice Kampfen, Prashant Shekhar, Radhe Shyam Mishra, Jurgen Maurer and Owen O'Donnell noted that prevalence increased strongly with age, and this was higher for females (43.7%) than for males (39.6%).

Prevalence of hypertension exceeded the national average of 42% in 28 of the 35 States, and varied from 31.3% in Uttar Pradesh to 66% in Lakshadweep. Awareness among those with hypertension varies from 27.5% in Nagaland to 75.9% in Jammu and Kashmir. Treatment among those with hypertension varies from 23.8% in Nagaland to 74.9% in Jammu and Kashmir.

States with the highest prevalence include those most advanced in the demographic transition, such as Kerala, and high-income States, such as Goa and Delhi. While prevalence tends to be lower in the low or middle-income States, it was relatively low in all four States with the highest rates of poverty – Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh.

“Those living in poorer States were at lower risk of hypertension. If they were hypertensive, however, they were also more vulnerable to diseases associated with the risk factor because they were less likely to have been diagnosed, treated, and controlled,” according to the study.

It is estimated that 54.4% of adults aged 45 years and above, and their spouses with hypertension were aware of their condition; 50.8% were treated while 28.8% had achieved control.

Major risk factor

Hypertension is a major risk factor for cardiovascular diseases (CVDs) that accounted for 44% of the 42 million deaths related to non-communicable diseases globally in 2019.

“The fact that older adults with chronic conditions, such as hypertension, are most likely to succumb to this illness and need high-cost medical care emphasises that investment in hypertension screening and management can potentially pay off in the long term through reduced demands on the health system,” the study said.