Covid-19: Plasma therapy

Covid-19: Plasma therapy not beneficial in reducing mortality, says ICMR Study (The Tribune: 2020910)


CP therapy involves taking antibodies from blood of a person who has recovered from Covid


Use of convalescent plasma therapy in coronavirus-infected patients does not help in reducing mortality or progression to severe COVID-19, a multi-centric study funded by the Indian Council of Medical Research (ICMR) has found.

The ‘open-label parallel-arm phase II multicentre randomized controlled trial’ (PLACID Trial) was conducted across 39 public and private hospitals across India between April 22 and July 14 to find effectiveness of convalescent plasma (CP) for the treatment of COVID-19, it said.

The CP therapy involves taking antibodies from the blood of a person who has recovered from COVID-19 and transfusing those into an active coronavirus patient to help kick-start the immune system to fight the infection.

A total of 464 participants (moderately ill COVID-19 patients admitted to hospitals) were enrolled for the study, which has not yet been peer-reviewed and has appeared on medRxiv, a preprint server.

The National Task Force for COVID-19, a committee formed by the ICMR to respond to the pandemic, has reviewed and approved this study, it said.

The Clinical Management Protocols for COVID-19 issued by the Union Health Ministry on June 27 allowed use of convalescent plasma (Off label) for treating coronavirus-infected patients in moderate stage of the illness under “investigational therapies”
This authorisation has been paralleled by questionable practices such as calls for donors on social media, and the sale of CP in the black market with exorbitant price tags in India, the study said.

Additionally, although CP is a safe therapeutic modality, plasmapheresis, plasma storage and NAb measurement are all resource-intensive processes, with a limited number of institutes in the country having the capacity to undertake these activities in a quality-assured manner.

“The CP was not associated with reduction in mortality or progression to severe COVID-19,” the study said, adding this trial has high generalisability and approximates real-life setting of CP therapy in settings with limited laboratory capacity.

A prior measurement of neutralising antibody titres in donors and participants may further clarify the role of CP in management of COVID-19, it said.

The study trial included 464 moderately ill coronavirus infected hospitalised patients, of whom 235 were given convalescent plasma along with best of standard care while 229 received only standard care, as per the study.

Those in the intervention arm received two doses of 200 ml of CP, transfused 24 hours apart, in addition to the BSC (best standard of care). The two plasma units were collected preferably from different donors depending on the availability and ABO compatibility to increase chances of receiving CP with NAb, it said.

“The PLACID trial results indicate that there was no difference in 28-day mortality or progression to severe disease among moderately ill COVID-19 patients treated with CP along with BSC compared to BSC alone,” the study said.

The central implementation team at the ICMR was responsible for study design, study coordination, data analysis, data interpretation and writing of the report, the study stated.

Patient enrolment, data collection and actual conduct of the study was done at public and private hospitals independently and the investigators in the ICMR had no role in it, it added.

CP as a passive source of neutralising antibodies and immunomodulators is a century-old therapeutic option used for the management of viral diseases.

According to the study, only two randomised controlled trials on CP use in COVID-19 have been published, one from China and the other from the Netherlands.

Both were halted prematurely, the China study due to inadequate patient enrolment and the one from the Netherlands due to a need to redesign the trial based on interim findings.

In both studies, no mortality benefit was noted, and the Dutch study raised uncertainties regarding pre-transfusion antibody-status of patients as a potential factor in identifying appropriate candidates for CP therapy.
This uncertainty in the published evidence is reflected in a recent systematic review, which remained undecided on both the safety and effectiveness of CP as a therapeutic option in hospitalized patients of COVID-19.

CP therapy has received regulatory approval for use in patients in different countries. This has resulted in its widespread adoption in real-world clinical practice, where it is being used to treat COVID-19 patients with a wide spectrum of disease severity.

“Given these uncertainties, we undertook the current study to determine the effectiveness of using CP in moderately ill COVID-19 patients admitted to hospitals across India in limiting progression to severe disease and determine the associated short-term adverse effects,” the study said.

All participants or their family members or legally authorised representatives were provided with information regarding the trial in a language they were comfortable with, and written informed consent was obtained prior to participant recruitment, it said. PTI

**Remdesivir**

**Dr Reddy's launches Remdesivir for COVID-19 treatment in India (The Tribune: 2020910)**


Remdesivir is approved by Drug Controller General of India (DCGI) for restricted emergency use in India

Dr Reddys Laboratories Ltd on Wednesday announced the launch of Remdesivir, meant for the treatment of COVID-19 patients, under a brand name 'Redyx' in India.

According to a press release from the drug maker, the launch is part of the licensing agreement with Gilead Sciences, Inc. (Gilead) that grants Dr Reddys the right to register, manufacture and sell Remdesivir, a potential treatment for Covid-19, in 127 countries including India.

Remdesivir is approved by Drug Controller General of India (DCGI) for restricted emergency use in India for the treatment of Covid-19 patients hospitalized with severe symptoms.

"Dr Reddy's Redyx is available in strength of 100 mg vial," it said.

Chief Executive Officer of Branded Markets (India and Emerging Markets), Dr Reddys Laboratories, M V Ramana said, "We will continue our efforts to develop products that address significant unmet needs of patients.

The launch of Redyx reaffirms our commitment to bringing in critical medicine for patients suffering from COVID-19 in India." PTI
The country saw a record single-day spike of 95,735 infections and 1,172 fatalities taking India's Covid caseload past 44 lakh and death toll to 75,062, while recoveries surged to 34,71,783 on Thursday, according to the Union Health Ministry.

The total cases mounted to 44,65,863, the ministry data updated at 8 am showed.

The Covid fatality rate has further dropped to 1.68 per cent while the recovery rate was recorded at 77.74 per cent.

There are 9,19,018 active cases in the country which comprise 20.58 per cent of the total caseload, the data stated.

India's Covid tally had crossed the 20 lakh mark on August 7, it went past 30 lakh on August 23 and past 40 lakh on September 5.

According to ICMR, a total of 5,29,34,433 samples have been tested up to September 9 with 11,29,756 samples being tested on Wednesday. PTI

Sunday curfew in all 167 towns of the state
Punjab records highest fatality rate, surpasses that of Gujarat, Maharashtra
At 2.95 per cent, Punjab on Wednesday recorded the highest case fatality rate (CFR) in the country, surpassing that of Gujarat (2.91%) and Maharashtra (2.9%).
At 2.95 per cent, Punjab on Wednesday recorded the highest case fatality rate (CFR) in the country, surpassing that of Gujarat (2.91%) and Maharashtra (2.9%). Post August 31, Punjab’s CFR has risen from 2.7 per cent to 2.95 per cent in just nine days.

Also read: Curfew across all towns of Punjab on Sundays
Recording almost 2,000 new cases for the past few days, Punjab’s caseload stood at 2,134 of Wednesday.

Dr Rajiv Bhaskar, Punjab’s nodal officer for Covid-19, explaining the high CFR, said patients were coming late to hospitals, mostly upon developing serious symptoms such as breathlessness.

As per the state Health Department data, 70 per cent of those dead were aged above 50 years. Health officials said though the testing rate in the state had improved and the recovery rate stood at 3.7 per cent, the CFR could be brought down only through “early detection and treatment.”

53 more Patiala jail inmates test positive

Patiala: Fiftythree more inmates at the Patiala Central Jail have tested positive for Covid-19, taking the total tally to 88. The Health Department has, therefore, declared the jail as a macro-containment zone. It has assigned more teams for mass sampling. Sources said it was difficult to stem the spread of virus in jails. These being overcrowded, physical distancing was not possible. TNS

Another testing high as cases breach 200k (Hindustan Times: 2020910)

https://epaper.hindustantimes.com/Home/ArticleView
Delhi on Wednesday conducted a record number of daily tests for the coronavirus disease (Covid-19), and consequently reported its highest single-day cases as the tally of infections in the city crossed 200,000, making it the only city in India to breach this mark.
The Capital – the first Covid-19 hot spot city in the country to control the spread of the virus, but which has seen an increase in the number of cases in the past two weeks – reported 4,039 new cases on Wednesday, taking the total number of infections to 201,174.

The Delhi government conducted a record 54,517 tests for Covid-19 on Wednesday. This was the sixth time in seven days that the city set a new record for daily tests, a statistic that highlights the magnitude of the increase in testing.

With 11,101 reverse transcription-polymerase chain reaction (RT-PCR) tests, considered the most accurate method of diagnosing Covid-19, Delhi also set a record for the highest number of single-day RT-PCR tests. The previous record was set a day ago, when Delhi conducted 9,944 such tests.

Delhi’s resurgence of cases had prompted Delhi chief minister Arvind Kejriwal on August 26 to announce the ramping up of testing to 40,000 daily samples to track, and isolate as many cases as possible.

As of Wednesday, the Capital has reported nearly 40,430 more infections than Mumbai, which has the second highest number of infections and 56,579 cases more than Chennai on the third spot. In total, Mumbai has reported 160,744 cases and Chennai has 144,595 infections till Wednesday night. All figures are according to the health bulletins issued by their respective state authorities. At the same time, however, Delhi has tested 100,198 per million of its population as compared to 40,032 in Maharashtra and 73,252 in Tamil Nadu (updated individual figures of Mumbai and Chennai are not available).

These three metropolitan cities, which were the initial hot spots of the virus in the country, remain the ones with the biggest concentration of infections (and deaths).

To be sure, the district of Pune has more cases (212,563), than these three cities. However, only 119,291 of those are from the city of Pune and the remaining are from surrounding areas such as Pimpri-Chinchwad that fall outside of city boundaries.

Delhi chief minister Arvind Kejriwal said in a tweet on Tuesday: “Today, Delhi reported the highest number of cases – 4,039. But it also conducted the highest number of tests – 54,517 against 15,000-20,000 tests till last week. If we were conducting the same number of tests (as last week), today’s cases would be fewer than 1,500. So, don’t be scared by the number of cases.”

On the back of the increased testing, the positivity rate in the city has again started dropping. Of the tests conducted on Wednesday, 7.4% came back positive. The average positivity rate, which had dropped from a peak of 31.4% in mid-June to 5.7% at the end of July, had been climbing again and was at 9% on September 1. In the past week, this has dropped to 8.2%. Overall, 10.6% of all tests done in Delhi have come back positive.

Experts said the dropping positivity rate is a good indicator for the city despite the rise in cases. “A good indicator to see if a government is testing enough is to look at the positivity rate in the city. If the positivity rate is increasing then that means that there is increased transmission of the virus in the community. In Delhi’s case this has been going down recently, which is a good sign. I will be happy if this drops below 5% for a period of two week, which is what the World Health Organization said is the threshold to show that the transmission of the virus is under control,” said Dr Lalit Kant, former head of the department of epidemiology at the Indian Council of Medical Research (ICMR).
Covid-19: What you need to know today (Hindustan Times: 2020910)

https://epaper.hindustantimes.com/Home/ArticleView
### Provinces with the most Covid-19 cases

<table>
<thead>
<tr>
<th>Province</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maharashtra, India</td>
<td>943,772</td>
</tr>
<tr>
<td>Sao Paulo, Brazil</td>
<td>858,783</td>
</tr>
<tr>
<td>California, United States</td>
<td>746,113</td>
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<td>Texas, United States</td>
<td>670,427</td>
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<td>Florida, United States</td>
<td>650,084</td>
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<tr>
<td>Andhra Pradesh, India</td>
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<tr>
<td>Tamil Nadu, India</td>
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<tr>
<td>New York, United States</td>
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<tr>
<td>Karnataka, India</td>
<td>412,190</td>
</tr>
<tr>
<td>Buenos Aires, Argentina</td>
<td>297,079</td>
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</tbody>
</table>

Source: HT database for all Indian numbers; NYT database for US and Brazil numbers; Argentina's health department for Buenos Aires numbers. All data as of September 8.

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**Scan** the QR code to read what this column said about the China mystery on July 31.
Maharashtra is the state, province, or region worst affected by Covid-19 in the world. The western Indian state, the most industrialised in the country, home to India’s commercial capital Mumbai, saw 943,772 cases of the coronavirus disease till Tuesday night, according to the HT dashboard. If it were a country, Maharashtra would be at No 5 in terms of the number of Covid-19 cases.

But it isn’t the sole Indian state in a listing of the top provinces by cases. Andhra Pradesh, with 517,094 comes in at #6; Tamil Nadu, with 474,940 cases at #7, and Karnataka, with 412,190 cases at #9. Uttar Pradesh, with 278,473 cases is just outside the top 10, at number 11.

India is now adding more cases a day (even when a seven-day average is taken) than any other country — more cases a day than China has seen in the entire run of the disease, although that country’s numbers are inexplicably low and the pandemic’s run there remarkably different from its trajectory in every other country in the world. Geographical area and population link the three countries worst affected by the coronavirus disease, the US, Brazil, and India. And it is inconceivable that China, which is third in terms of geographical area, and first in terms of the population, and where the viral infection began (in Wuhan), has seen only 85,000 cases. A previous edition of this column (Dispatch 119, published on July 31) looked at some possible answers to this mystery.

But we don’t need to go as far as China for a mystery. This writer, for instance, needs to travel only around 30km for one — Uttar Pradesh, India’s most populous state with 225 million people. If it were a country, it would be either the fifth or the sixth most populous one in the world. It has conducted almost 30,000 tests per million — which means it has tested around 3% of its population, a proportion that is not insignificant. Yet, it has seen only 278,483 cases of Covid thus far (till Tuesday night). Its overall positivity rate is 4.11%. Its case fatality rate is 1.45%, lower than India’s. And this is a state with among the worst social indicators in the country.

It isn’t that Uttar Pradesh’s positivity rate (number of people testing positive to number of tests) has reached this level after traversing the usual curve this metric does — it has pretty much stayed at the same level. The highest it ever reached on a seven-day average (since it started testing at least 1,000 samples a day) was 6.4%, and the lowest 2.1%.

Interestingly, the trend seen in Uttar Pradesh isn’t very different from that in many African countries (most have social indicators comparable to the Indian state). Africa’s relatively low number of cases and deaths, experts say, can only partly be explained by under-reporting of cases, or gaps in death registries. Scattered antibody tests that have been carried out around the continent show that there has been significant exposure to the Sars-CoV-2 virus in many African countries — with a test in Kenya highlighting a prevalence of around 20%.

Two theories are doing the rounds as possible explanations for Africa’s remarkable numbers. One revolves around the continent’s relatively younger population. The median age in many African countries is in the early 20s. The median age in Uttar Pradesh is also in the early 20s, among the lowest in India. The other is that populations in many African countries may have been exposed to other coronaviruses, even other infectious diseases, giving them greater immunity to Sars-CoV-2. The same can be said of Uttar Pradesh’s population.

There is, of course, a third theory. That Africa’s numbers are just a temporary aberration and that, eventually, countries in the continent will start seeing Covid-19 infection curves similar to those seen in Europe, the US, and Latin America. That could be true of Uttar Pradesh as well.
Oxford Covid vaccine trials paused after candidate ‘ill’

London, Sept. 9: The human trials of one of the most promising Covid-19 vaccine candidates, being developed by the University of Oxford, has been put on hold after a UK participant had an adverse reaction to it.

AstraZeneca, the biopharmaceutical giant in tie-up with the university to produce the vaccine, described the pause as a “routine” one following what was an “unexplained illness”.

The trials had moved into Phase III after successful Phase I and II testing had raised worldwide hopes of it being ready by early next year.

Meanwhile, the Serum Institute of India has been issued a showcase notice by Indian drug controller DCGI.

The DCGI has asked why the SII has not submitted the report related to the incident in UK and why it is progressing with the trial instead of pausing it. — Agencies
**Overall death toll is 73,890**

**India records new 89,706 Covid cases, 1,115 death in 24 hrs**

*New Delhi, Sept. 9*

India on Wednesday recorded 89,706 fresh cases of novel coronavirus pushing the country’s overall tally to 43.70 lakh. In one day 1,115 deaths took place taking overall fatalities due to the virus to 73,890.

Apart from Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu that continue to register high cases, the national capital Delhi, where Covid-19 cases had come down substantially last month, has now started witnessing a fresh wave of high cases. Delhi on Wednesday recorded 4,039 fresh cases, which was the highest single-day spike in the city so far taking its overall tally over 2 lakh and death count 4,638.

Union health ministry officials said India has progressively maintained a low Case Fatality Rate which was 1.7% on Wednesday, compared to the global average of 3.28%. “The aim is to achieve a national CFR of less than 1%. There are 17 States/UT’s that are even today reporting mortality figures lower than 1%,” officials said.

The health ministry said that in the last 24 hours, India has scaled a new high of recoveries as the total number of recovered patients in a single day surged to a record 74,894. With this, the total number of recoveries has touched almost 34 lakh taking the Recovery Rate to 77.77%.
Education Sector (The Asian Age: 2020910)

NEP: Ambitious targets set for education sector

Amitabha Bhattacharya

The National Education Policy 2020 in its 63 pages, distilled from its original draft and modified via extensive feedback and comments from all stakeholders, is a comprehensive document. The policy, released by the Ministry of Education, aims to address issues such as the inadequate number of schools, the lack of access to education for children, and the need for a more flexible and inclusive education system. The policy reflects a significant shift in the way education is perceived and delivered in India.

The policy emphasizes the importance of universal literacy, especially in rural areas, and aims to provide equal opportunities for girls and boys. It also proposes the creation of new schools and the improvement of existing ones, with a focus on reducing the dropout rate.

In terms of curriculum, the policy proposes a reduction of academic load for schoolchildren, moving away from rote learning and promoting the development of critical thinking and problem-solving skills. It also emphasizes the importance of teacher training and the need for qualified teachers at all levels.

The policy also addresses the issue of teacher retention by proposing the creation of a career ladder for teachers and the provision of opportunities for professional development.

In conclusion, the NEP 2020 represents a significant step forward in the reform of the education system in India. It provides a framework for the development of a world-class education system that is inclusive, accessible, and adaptable to the needs of the 21st century.
Coronavirus | Vaccine trial volunteer had neurological symptoms, says AstraZeneca CEO (The Hindu: 2020910)

https://www.thehindu.com/sci-tech/health/coronavirus-vaccine-trial-volunteer-had-neurological-symptoms-says-astrazeneca-ceo/article32565754.ece

The participant was recovering and will likely be discharged from the hospital as early as Wednesday (September 9)

AstraZeneca said a woman in the United Kingdom had symptoms consistent with a rare but serious spinal inflammatory disorder, which led to the British drugmaker’s decision to stop its clinical study of the new coronavirus vaccine, Stat News reported on Wednesday.

COVID-19 patients

Coronavirus | Plasma therapy didn’t help COVID-19 patients: ICMR (The Hindu: 2020910)


India’s largest trial covered 39 hospitals, over 400 patients

Convalescent plasma (CP) therapy failed to benefit coronavirus (COVID-19) patients, the largest trial conducted across 39 hospitals in India and spearheaded by the Indian Council of Medical Research (ICMR) found.

Coronavirus | Oxford vaccine

Coronavirus | Oxford vaccine trial put on hold over safety concern (The Hindu: 2020910)

https://www.thehindu.com/sci-tech/health/coronavirus-oxford-vaccine-trial-put-on-hold-over-safety-concern/article32557090.ece
In this handout photo released by the University of Oxford samples from coronavirus vaccine trials are handled inside the Oxford Vaccine Group laboratory in Oxford, England Thursday June 25, 2020.

The nature of the safety issue and when it happened were not immediately known. AstraZeneca Plc has put a hold on the late-stage trial of its highly-anticipated COVID-19 vaccine candidate after a suspected serious adverse reaction in a study participant, health news website Stat News reported on Tuesday.

It quoted an AstraZeneca spokesperson as saying in a statement that the “standard review process triggered a pause to vaccination to allow review of safety data.

The study is testing a COVID-19 vaccine being developed by AstraZeneca and University of Oxford researchers at sites including India, the United States and the United Kingdom, where the adverse event was reported.

The nature of the safety issue and when it happened were not immediately known, although the participant is expected to recover, according to Stat News.

The report said suspension of the trial was having an impact on other AstraZeneca vaccine trials - as well as on clinical trials being conducted by other vaccine makers.

Nine leading U.S. and European vaccine developers pledged on Tuesday to uphold scientific safety and efficacy standards for their experimental vaccines despite the urgency to contain the coronavirus pandemic.

The companies, including AstraZeneca, Pfizer Inc and GlaxoSmithKline, issued what they called a “historic pledge” after a rise in concern that safety standards might slip in the face of political pressure to rush out a vaccine.

The companies said they would “uphold the integrity of the scientific process as they work towards potential global regulatory filings and approvals of the first COVID-19 vaccines.”.

The other signatories were Johnson & Johnson, Merck & Co, Moderna Inc, Novavax Inc, Sanofi and BioNTech.
Virus and other diseases

The virus and other diseases (The Indian Express: 2020910)

https://indianexpress.com/article/opinion/the-coronavirus-and-other-diseases-6588303/

Increase in cardiac-related deaths during the past five months is a sign that in times of social distancing we must be alert to any symptom requiring medical attention.

At a time when the COVID-19 pandemic has highlighted the importance of the need to prepare themselves for unforeseeable times, we need to look at a more holistic approach and embrace innovations to manage the disease burden in our country. (Express Photo: Jasbir Malhi)
Written by Sunil Sathe and Viveka Kumar

When 27-year-old Rima Singh complained of recurring chest pain, her family thought it was due to indigestion or a muscle strain. However, when one day the pain became unbearable, she was rushed to the hospital. On diagnosis, the doctor informed Rima’s family it was a case of sudden cardiac arrest (SCA) and immediate surgery was required. The physician also stated genetic history to be the reason for her medical condition.

In 2015, she underwent a subcutaneous Implantable Cardioverter-Defibrillator (S-ICD) implant and was discharged from the hospital the next day. Five years later, the battery of the device depleted, and Rima underwent a device replacement surgery. Until a few years back, a heart implant meant longer hospital stays and a long recovery time. However, technologies like S-ICD therapy are changing the way we understand the dynamics of heart care.

In the past five months, as per a few hospitals in India, there is an increase in deaths from SCA at home due to delay in seeking medical attention. The potential reason for this is that people ignore symptoms such as chest pain or discomfort, heart palpitations, irregular heartbeats, wheezing, shortness of breath and dizziness, and do not visit the hospital due to the fear of contracting the novel coronavirus. However, it is imperative to understand that SCA may occur in people who have no known heart disease.

SCA occurs when the heart abruptly loses its function, breathing and consciousness. The condition usually results from an electrical disturbance in the heart that disrupts its pumping action and stops blood flow to the body. The rate and rhythm of the heartbeat are controlled by the heart’s electrical system. The heart can beat too fast, too slowly or irregularly (arrhythmia), if something goes wrong. Mostly the arrhythmias are brief and harmless, but some types can lead to SCA.

S-ICD is recommended for patients with increased complications. It is a device for heart failure patients who are also at a high risk for SCA. Such technologies detect and stop abnormal heartbeats (arrhythmias). The ICD constantly monitors the heartbeat and delivers electrical pulses to restore a normal heart rhythm when required, even when the person is far from the hospital.
Unlike the conventional ICDs for which wire leads are inserted directly into the heart through a large vein, the S-ICD therapies use a subcutaneous or beneath the skin-electrode that is placed near the heart to sense irregular heart arrhythmias and deliver therapy.

In this minimally invasive surgery, the electric pulse generator is implanted below the armpit using a four to five-inch incision. As the electrode that delivers the shock is not placed directly into the heart, the chance of infections is reduced. The procedure requires a reduced hospital stay, avoids visible incision scarring, and provide patients with a normal and healthy life. In Rima’s case, we did not face any issue, however, the S-ICD device is about twice as large as a traditional ICD, which makes some patients like the ones who are very thin, ineligible for the implant.

At a time when the COVID-19 pandemic has highlighted the importance of the need to prepare themselves for unforeseeable times, we need to look at a more holistic approach and embrace innovations to manage the disease burden in our country.

That is where advanced technologies like S-ICD play a crucial role in patient care. As compared to the conventional Transvenous implantable cardiac defibrillators (TV-ICDs), S-ICD involves low infection rate, reduced hospital stays and give patients a better quality of life. This is more useful in the younger population.

An Edinburgh University study on COVID patients from 69 countries revealed that the heart scans of 55 per cent of them showed abnormalities. This study is alarming for people who fall in the high-risk group. As the world observes social distancing and self-isolation, home-based measures and self-care become of utmost importance. A very important part of care is consulting your doctors virtually. Do not let restrictions deny you access to your doctors. Set up online consultations to ensure you are managing your symptoms well. Therefore, on noticing any symptom, it is imperative to consult a doctor through telemedicine. If the doctor says that your situation requires urgent medical attention, rush to the hospital without delay. Additionally, a few precautions taken at home can help in keeping the healthy heart, for example, avoid smoking, maintain a healthy weight, drink alcohol in moderation, eat a heart-healthy diet, stay physically active by exercising regularly and manage stress.

**Diabetic people**

**Over 1 drink a day ups high BP risk in diabetic people: Study (New Kerala: 2020910)**


Drinking eight or more alcoholic beverages a week may increase the risk of high blood pressure (also called hypertension) among adults with Type-2 diabetes, warn researchers.
"This is the first large study to specifically investigate the association of alcohol intake and hypertension among adults with Type-2 diabetes," said senior study author Matthew J. Singleton from the Wake Forest University in the US.

Previous studies have suggested that heavy alcohol consumption was associated with high blood pressure, however, the association of moderate alcohol consumption with high blood pressure was unclear.

For the results published in the Journal of the American Heart Association, the research team examined the relationship between alcohol consumption and blood pressure in more than 10,000 adults with Type-2 diabetes (average age 63 years in 61 per cent male).

Participants had Type-2 diabetes for an average of 10 years prior to enrolling in the study. In addition to 10 years with Type-2 diabetes, they were at an increased risk of cardiovascular events because they had pre-existing cardiovascular disease or had at least two additional cardiovascular disease risk factors such as high blood pressure, high cholesterol, smoking or obesity. In this study alcohol consumption was categorised as none, light (one to seven drinks per week), moderate (eight to 14 drinks per week) and heavy (15 or more drinks per week).

One alcoholic beverage was equivalent to a 12-ounce beer, 5-ounce glass of wine or 1.5 ounces of hard liquor. The number of drinks per week was self-reported by each participant via a questionnaire when they enrolled in the study.

The researchers found that light drinking was not associated with elevated blood pressure or either stage of high blood pressure.

However, moderate drinking was associated with increased odds of elevated blood pressure by 79 per cent, stage-one high blood pressure by 66 per cent and stage-two high blood pressure by 62 per cent.

The findings showed that heavy drinking was linked to increased odds of elevated blood pressure by 91 per cent, stage-one high blood pressure by 149 per cent (a 2.49-fold increase) and stage-two high blood pressure by 204 per cent (a 3.04-fold increase).

"People with Type-2 diabetes are at higher cardiovascular risk and our findings indicate that alcohol consumption is associated with hypertension, so limited drinking is recommended," the study authors wrote.

Blood pressure

Mindfulness with paced breathing reduces blood pressure: Study (New Kerala: 2020910)


A team of researchers has now explored the possibility of whether mindfulness with paced breathing reduces blood pressure.
According to the American Stroke Association (ASA) and the American Heart Association (AHA), more than 100 million Americans have high blood pressure. Elevated blood pressure is a major avoidable cause of premature morbidity and mortality in the United States and worldwide due primarily to increased risks of stroke and heart attacks.

Elevated blood pressure is the most important major and modifiable risk factor to reduce stroke. In fact, small but sustained reductions in blood pressure reduce the risks of stroke and heart attacks. Therapeutic lifestyle changes in weight loss and salt reduction as well as adjunctive drug therapies are beneficial to treat and prevent high blood pressure.

Mindfulness is increasingly practiced as a technique to reduce stress through mind and body interactions. In some instances, mindfulness includes paced breathing defined as deep and diaphragmatic with slow rates typically about five to seven per minute compared with the usual rate of 12 to 14. Researchers from Florida Atlantic University's Schmidt College of Medicine and collaborators have published a paper in the journal Medical Hypotheses, exploring the possibility that mindfulness with paced breathing reduces blood pressure.

"One of the most plausible mechanisms is that paced breathing stimulates the vagus nerve and parasympathetic nervous system, which reduce stress chemicals in the brain and increase vascular relaxation that may lead to lowering of blood pressure," said Suzanne LeBlang, M.D., a neuroradiologist, second and corresponding author, and an affiliate associate professor in FAU's Schmidt College of Medicine.

The researchers believe the hypothesis they have formulated that mindfulness with paced breathing reduces blood pressure should be tested. To do so, FAU's Schmidt College of Medicine co-authors are already collaborating with their co-authors from the Marcus Neuroscience Institute, Boca Raton Regional Hospital/ Baptist Health South; and the University of Wisconsin School of Medicine and Public Health on an investigator-initiated research grant proposal to the National Institutes of Health.

The initial pilot trial would include obtaining informed consent from willing and eligible subjects and assigning them at random to mindfulness either with or without paced breathing and examining whether there are sustained effects on lowering blood pressure.

"This pilot randomized trial might lead to further randomized trials of intermediate markers such as inhibition of progression of carotid intimal thickening or coronary artery atherosclerosis, and subsequently, a large scale trial to reduce stroke and heart attacks," said Charles H. Hennekens, M.D., Dr.PH, senior author, first Sir Richard Doll Professor and senior academic advisor in FAU's Schmidt College of Medicine.

"Achieving sustained reductions in blood pressure of 4 to 5 millimeters of mercury decreases the risk of stroke by 42 percent and heart attacks by about 17 percent; so positive findings would have important clinical and policy implications," added Hennekens.

According to the ASA and AHA, cardiovascular disease (CVD), principally heart attacks and strokes, accounts for more than 800,000 deaths or 40 percent of total mortality in the U.S. each year and more than 17 million deaths worldwide. In the U.S., CVD is projected to remain the single leading cause of mortality and is rapidly becoming so worldwide. Stroke alone ranks
fifth in all-cause mortality in the U.S., killing nearly 133,000 people annually as well as more than 11 percent of the population worldwide.

"Now more than ever, Americans and people all over the world are under increased stress, which may adversely affect their health and well-being. We know that mindfulness decreases stress and I am cautiously optimistic that mindfulness with paced breathing will produce a sustained lowering of blood pressure," said Barbara Schmidt, co-author, teacher, researcher, philanthropist, bestselling author of "The Practice," as well as an adjunct instructor at FAU's Schmidt College of Medicine.

Covid-19 infection

Avoid singing to cut the spread of Covid-19 infection: Study (New Kerala: 2020910)


Avoid singing to cut the spread of Covid-19 infection: Study

In a fight against novel coronavirus (Covid-19), the researchers have found that singing -- particularly loud and consonant-rich singing -- spreads a lot of aerosol particles and droplets into the surrounding air -- increasing the spread of Covid-19 virus.

"We have studied the amount of particles we actually emit when we sing -- and by extension -- if we contribute to the increased spread of Covid-19 by singing," said the study authors from Lund University (LU) in Sweden.

There are many reports about the spreading of Covid-19 in connection with choirs singing. Therefore, different restrictions have been introduced all over the world to make singing safer.

"So far, however, there has been no scientific investigation of the number of aerosol particles and larger droplets that we actually exhale when we sing," said study researcher Jakob Londahl of LU.

For the study, published in the journal Aerosol Science and Technology, 12 healthy singers and two people with confirmed Covid-19 took part in a research project. Seven of the participants were professional opera singers.

"Some droplets are so large that they only move a few decimetres from the mouth before they fall, whereas others are smaller and may continue to hover for minutes," said study researcher Malin Alsved.

"In particular, the enunciation of consonants releases very large droplets and the letters B and P stand out as the biggest aerosol spreaders," Alsved added.
During the research experiments, the singers had to wear clean air suits and enter a specially built chamber supplied with filtered, particle-free air.

In the chamber, the analysis was conducted of the number and mass of particles emitted by singers during breathing, talking, different types of singing and singing with a face mask.

During the song tests, aerosols and larger droplets were measured using strong lamps, a high-speed camera and an instrument that can measure very small particles.

The louder and more powerful the song, the greater the concentration of aerosols and droplets.

"We also carried out measurements of virus in the air close to two people who sang when they had Covid-19," the team wrote.

Their air samples contained no detectable amount of virus, but the viral load can vary in different parts of the airways and between different people.

"Accordingly, aerosols from a person with Covid-19 may still entail a risk of infection when singing," the team notes.

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**Surgery**

**Study finds opioid prescription for knee surgery vary widely from state to state in US (New Kerala: 2020910)**


New research from Texas A&M University and the University of Pennsylvania on opioid prescribing practices across the country after outpatient knee surgeries found that prescription strength and a number of tablets is prescribed highest in Oklahoma and lowest in Vermont.

The study led by Benjamin Ukert, PhD, assistant professor in the Health Policy and Management department at the Texas A and M University School of Public Health, along with colleagues from the University of Pennsylvania, analysed the rates and dosages of opioid prescriptions after arthroscopic knee surgery from January 2015 to June 2019. The researchers used data on health insurance claims from a large national private health insurer that operates in all 50 states and insures 7.5 million people each year.

Higher prescription rates were found in Arizona, Washington State, Ohio, Utah and others, with lower rates in Texas, South and North Dakota and largely along the east and west coasts. Of interest were the number of tablets per prescription and the strength of the medication measured in morphine milligram equivalent (MME).

The researchers analyzed data on nearly 100,000 opioid knee surgery patients. They found that patients who received a prescription were more likely to be younger, male and white, to have higher income and education levels and to have undergone a more invasive procedure involving
bone. Prescription data showed a wide variation in the number of tablets and MME from state to state. Vermont had the lowest median tablet quantity and MME (24.1 and 157) and Oklahoma had the highest (44.9 and 371). The Centers for Disease Control and Prevention has determined 50 MME per day as being the threshold for increased risk of opioid overdose death.

Pain should not vary from state to state, thus the wide variation in prescribing shows that there is room to adjust prescribing practices. Ukert and colleagues estimate that over 5 million MME could have been prevented from being distributed if the MME level would not have exceeded the median total MME dosage in each year.

Using practices in states with lower quantities and MME levels as a guide, it may be possible to develop prescribing guidelines that allow effective pain management while reducing the risk of opioid misuse. With better guidance, physicians can help patients manage post-surgical pain while significantly reducing the risks of opioid misuse and unintentional death.

CoronaVirus Vaccine

CoronaVirus Vaccine: सीरम को मिला नोटिस, दूसरे और तीसरे चरण के ट्रायल पर लग सकती है रोक(Amar Ujala: 20200910)


एसआईआई के सीईओ अदार पूनावाला का कहना है कि दूसरे और तीसरे चरण के नैदािनक परीण को रोकने के लिए अभी तक कोई प्रौद्योगिकी नहीं मिली है। डीसीजीआई का कहना है कि तकरार, जब पुणे के एसआईआई ने सुरा के लिए चरण 2 और 3 के नैदािनक परीण की निरंतरता के लिए गैरप्रिकूल परीणों का विचारण प्रस्तुत नहीं किया है।

यह भी पढ़ें- Coronavirus Vaccine: क्या भारत में जारी रहेगा ऑसफोड की वैसीन का ट्रायल? कंपनी ने बताया सच्चाइ

यह नोटिस ऐसे समय पर आया है जब एसआईआई के सीईओ अदार पूनावाला का कहना है कि दूसरे और तीसरे चरण के लिए नैदािनक परीण निवारण मूल रूप से सभी 17 तटस्थ राज्यों पर जारी रहेंगे। जबकि मंत्री ने बिंतम विज्ञापन ने दिया का अस्थिरता न्यूरोल्रोस्मल पूरीतिक परीण दिखाया, पूनावाला ने कहा, ‘वैसीन पूरी तरह से सुरक्षित है। जब हां तब भारतीय परीण का सफल होगा, हमें सबसे बुझे तफ लाने की स्थानता नहीं किया।’

एसआईआई ने एक बयान में कहा, ‘हम डीजीजीआई के निर्देशों के अनुसार काम कर रहे हैं और हमे अब तक परीणों को रोकने के लिए नहीं बताया गया है। यदि सुरा को लेकर डीजीजीआई को कोई निर्देश नहीं किया जाए, हम निर्देशों के अनुसार नए प्रोटोकॉल का पालन करेंगे।’ भारत में कुल 100 स्वास्थ्यविज्ञान के कॉभर्डिव्ड वैसीन के परीण की पहली चरण में मिला चुकी है। यदि इसे सुरक्षित प्रमाणित किया जाता है तो भारत में सीरम संस्थान द्वारा इसे निम्नित किया जाएगा।
what to do after water breaks in pregnancy in hindi

गर्भावस्था के अंत में पानी की थैली फटने के बाद जीवनमयी देश में हो जानी चाहिए हिल्सरी


प्रेग्नेंट महिलाएं हिल्सरी से पहले पानी की थैली फटने (Water Broke) को लेकर बहुत परेशान रहती हैं। इसे लेकर उनके मन में कई तरह के सवाल आते हैं जैसे कि बॉटर ब्रेक कब होगा, कैसा महसूस होगा और इसके बाद क्या करना है। बॉटर ब्रेक को हिल्सरी का समस्या अंतराल मान सकता है।

दरअसल, शिशु गर्भ में एमनोविटिक फ्लूइड से बना होता है। यह गर्भावस्था में एक थैली के अंदर होता है। जब यह थैली फटती है, तो एमनोविटिक फ्लूइड बाहर आता है। पानी की थैली प्रत्येक हिल्सरी से तुलना पड़ती है या इसके दौरान फटती है। अगर दर्द शुरू होने से पहले ही पानी की थैली फट जाए तो ये प्रैक्टिशियर राउफ ऑफ आर्टिस्ट कहते हैं।

शिशु की थैली फटने के बाद क्या होता है

एमनोविटिक फ्लूइड हाइमेस, पोषक तत्त्वों और एंटीबॉडीज से बना होता है। ये शिशु को नी महिला में सुरक्षित और गर्म रखता है। इससे फ्लूड, पाचन तंत्र और मस्तिष्कोत्सरों से मदद मिलती है।

23वें सप्ताह के बाद शिशु जीवित रहने के लिए इस एमनोविटिक फ्लूइड पर अधिक निर्भर नहीं होता है। इस्की बजाय उसे पूरसेंट से ऑक्सीजन और पोषक तत्त्वों मिलते हैं।

गर्भावस्था के आखिरी दिनों में एमनोविटिक थैली सिर्फ तुलना देने का काम करती है। अगर यह थैली फट जाए तो शिशु को इंफेक्शन होने और कोई प्रोटेस्ट जैसे अन्य जोखिम रहते हैं।

यह भी पढ़ें : प्रेग्नेंशी में स्ट्रेस का नुकसान करने के लिए 48 घंटे इंतजार करना चाहिए।
पानी की बैतली फटने के बाद सबसे महत्वपूर्ण होता है मॉनिटर करना। अगर आपकी पानी की बैतली फट गई है और आपको कोई मेडिकल मदद नहीं मिल पा रही है तो आपके शिशु को कोई गंभीर खतरा हो सकता है। इस स्थिति में शिशु की मदद भी हो सकती है। मां को भी इंफेक्शन और अन्य समस्याओं का खतरा रहता है।

यह भी पढ़ें: फैली पुलाईंग को फेल कर सकता है मिसक्रेटेज, जानिए इसके लक्षण और संकेत

इलाज

दुर्भाग्य की बात है कि समय से पहले पानी की बैतली को फटने से रोकने के लिए कोई तरीका नहीं है। हालांकि, इसके बाद सामने आई है कि धूम्रपान से इस जोखिम को कम किया जा सकता है।

प्रेग्नेंसी के दौरान वैज्ञानिक डिस्स्यार्ड लेबर पेन से नजर रखें। डिलीवरी से पहले आपके लेबर पेन के कई गलत संकेत मिल सकते हैं।अगर पानी की बैतली फट गई है तो तुरंत अस्पताल जाएं।

जब तक लेबर पेन खुद खुद शुरू न होता, तब तक डॉक्टर मॉनिटर करते हैं और 48 घंटे के अंदर भी लेबर पेन शुरू न हो तो फिर कोई एक्शन लिया जाता है।

**Coronavirus Cases (Hindustan: 2020910)**

https://epaper.livehindustan.com/imageview_304647_86192080_4_1_10-09-2020_0_i_1_sf.html
दिल्ली में रिकॉर्ड जांच, केस भी बढ़े

जब दिल्ली | वरिष्ठ संवाददाता
दिल्ली में कोरोना संक्रमण की जांच रिकॉर्ड और पहुंच गई है। एक दिन में 54 हजार टेस्ट का कीर्तिमान, मामले दो लाख पार।

दिल्ली में रिकॉर्ड जांच, केस भी बढ़े

रिकॉर्ड जांच, केस भी बढ़े

> कोई मौत न हो केस 03
Coronavirus (Hindustan: 2020910)

https://epaper.livehindustan.com/imageview_304650_86441590_4_1_10-09-2020_3_i_1_sf.html
कोरोना से कोई मौत नहीं होनी चाहिए: केजरीवाल

निर्देश

नई दिल्ली | वरिष्ठ संवाददाता

मुख्यमंत्री अरविंद केजरीवाल ने अधिकारियों को कोरोना से जुड़े दिशा निर्देशों का कड़ाई से पालन कराने को कहा। उन्होंने कहा कि केस थोड़े बढ़ रहे हैं, लेकिन किसी की मौत नहीं होनी चाहिए।

केजरीवाल ने बुधवार को स्वास्थ्य मंत्री सर्वेंद्र जैन, मुख्य सचिव, लैव संचालकों और चिकित्सा अधिकारियों के साथ समीक्षा बैठक की। इस दौरान केजरीवाल ने कहा कि रोजी-रोटी के तलाश में बाहर से आ रहे लोग, उनके द्वारा जांच नहीं करने, जांच की संख्या में इजाफा से कोरोना संक्रमण के मामले थोड़े बढ़े हैं, लेकिन सरकार हमेशा मदद के लिए तैयार है। उन्होंने खूब टेस्ट करने, अस्पतालों को हर मदद करने व बेड की कमी न होने देने के निर्देश दिए।

उन्होंने कहा कि दिल्ली मॉडल को बरकरार रखने हेतु कोरोना को नियंत्रित करना है। उन्होंने कहा कि कोरोना संक्रमण रोकने के लिए जो भी कदम उठाए जा सकते हैं, वो उठाए जाएं, सरकार हर तरह से मदद करेगी।