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The Indian EXPRESS

Can you be infected with monkey pox and Covid-19 at the same time?

While currently there are no co-existing cases of anyone infected with Covid-19 and monkeypox together, experts urge it is best to continue practising hygiene strategies

By: Lifestyle Desk | New Delhi | May 26, 2022 3:00:47 pm



Can you be doubly infected by Covid-19 and monkeypox? (Source: Getty Images/Thinkstock/Wikimedia Commons)

More than 20 countries have reported cases of <u>monkeypox</u>, leaving people worried about getting infected, especially amid the <u>ongoing Covid-19</u> scare. But can a person get infected by the two viruses at the same time? Since there are no cases reported at present, there is no need to panic, say experts, adding that the chances are low considering <u>monkeypox</u> doesn't spread as much as <u>Covid-19</u>. They also say the scientific community is familiar with how 🐵 Hindustan Times

Govt studying BCG vaccine use as Covid booster shot after Covaxin

BCG vaccine primarily provides protection against tuberculosis and has been administered to newborns as part of Centre's National Immunization Programme for the least 50 years.



A healthcare worker administers a dose of the Covid-19 preventive vaccine to a beneficiary, at a vaccination camp in Gurugram. (PTI)

Updated on May 26, 2022 03:38 AM IST

Rhuthma

Kaul

The national Covid taskforce is reviewing a proposal to evaluate the efficacy of the Bacillus Calmette Guerin (BCG) vaccine as an immune booster with Covid-19 vaccine Covaxin, with a plan to possibly carry out a an open label randomised...

Continued in page No.10

monkeypox is transmitted, and also how it can be contained — giving health authorities a comfortable head-start.

"The risk to the general public, therefore, appears to be low. From what we know of this virus and its modes of transmission, the outbreak can still be contained. As such, it is the objective of the <u>World Health Organization</u> (WHO) and the Member States to contain this outbreak and to stop it," said Dr Rosamund Lewis, head of the smallpox team, which is part of the WHO Emergencies Programme.

Can they co-exist?

Dr Sulaiman Ladhani, consulting chest physician, MD chest and tuberculosis, Masina Hospital, Mumbai is of the opinion that they can definitely coexist but both are "two different viral infections". "Normally, monkeypox fatalities range between one and 10 per cent, but the presence of Covid-19 may increase fatalities because it can make VOU more immunocompromised and make things more difficult. By itself, Covid-19 is quite a devastating disease, and if they both coexist, the symptoms may turn out to be similar, but the diagnosis will become very difficult," he said.

Notably, Covid-19, according to the WHO, is an infectious disease caused by the SARS-CoV-2 virus spread through an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, and sing or breathe. <u>Monkeypox</u>, on the other hand, is a viral zoonotic disease, originally transmitted from animals, that can later be transmitted from one person to another by close contact with lesions, body fluids, respiratory droplets, and contaminated materials such as bedding.

The classic symptom in the case of monkeypox is a rash. The incubation period (interval from infection to onset of symptoms) of monkeypox is usually from 6 to 13 days but can range from 5 to 21 days, WHO states. According to the United Nations agency, monkeypox is usually a selflimited disease with symptoms lasting from twofour weeks. Severe cases occur more commonly among children and are related to the extent of virus exposure, patient health status, and nature of complications. One may rarely get infected with Covid-19 and monkeypox virus as the former spreads quickly and easily by simply talking with an infected person. "Mortality rate is less than two per cent in monkeypox cases," asserted Dr Rupkatha Sen, chief intensivist, SRV Hospitals, Chembur.

Diagnosis and treatment

While Covid-19 is effectively diagnosed with a RTPCR test, monkeypox is detected by histopathological diagnosis by microscopy. "Treatment, if at all, with both co-existing, may be a little challenging in the case of the immuno-compromised, elderly patients," said Dr Ladhani.

Rather than Covid-19, according to WHO, the clinical presentation of monkeypox resembles that of smallpox, a related orthopoxvirus infection which has been eradicated. **Smallpox** was more easily transmitted and more often fatal as about 30 per cent of patients died. The global health body mentions that the last case of naturally acquired smallpox occurred in 1977, and in 1980 smallpox was declared to have been eradicated worldwide after a global campaign of vaccination and containment.

"It has been 40 or more years since all countries ceased routine smallpox vaccination with vaccinia-based vaccines. As vaccination also protected against monkeypox in West and central Africa, unvaccinated populations are now also more susceptible to monkeypox virus infection," it reads.

Prevention

According to Centers for Diseases Control and Prevention (CDC), preventive measures for monkeypox are avoid contact with animals that could harbour the virus (including animals that are sick or that have been found dead in areas where monkeypox occurs); avoid contact with any materials, such as bedding, that has been in contact with a sick animal; isolate infected patients from others who could be at risk for infection, practice **good hand hygiene** after contact with infected animals or humans, and use personal protective equipment (PPE) when caring for patients.

Even as masks are not mandatory, it is important to practice hand hygiene, and get vaccinated, experts urge to slow the spread of Covid-19.



Monkeypox and Covid-19: Expert shares differences

Discovered in colonies of monkeys in 1958, the virus is normally seen in African countries, even though monkeys aren't likely to be the source, said Dr Sulaiman Ladhani, consulting chest physician, MD chest and tuberculosis

By: Lifestyle Desk | New Delhi | Updated: May 25, 2022 1:26:47 pm



While monkeypox too has flu-like symptoms, it is more of fever, headache, body aches with lymph node enlargement and the rashes and the skin lesions (Source: Reuters/Getty Images/Thinkstock)

With **monkeypox** cases being reported in more than 20 countries, people are worried about its spread and transmission, especially amid <u>Covid-</u><u>19</u> conditions. Hence, to stay safe, experts advise caution and adoption of preventive strategies.

According to the World Health Organization (WHO), <u>monkeypox</u> spreads differently from <u>Covid-19</u>. "WHO encourages people to stay informed from reliable sources, such as national health authorities, on the extent of the outbreak in their community (if any), symptoms and prevention," it states in a statement issued on its website.

Monkeypox and Covid-19

<u>Monkeypox</u> is not a new illness, said Dr Sulaiman Ladhani, consulting chest physician, MD Chest and Tuberculosis, Masina Hospital, Mumbai. "It was first reported in 1958, and is supposed to be similar to smallpox, but is a milder form. It is also caused by a virus — like Covid-19 — but the two are not remotely related.



Monkeypox typically causes fever, chills, rashes and lesions on the face or genitals. (Source: Wikimedia Commons)

Coronaviruses normally contain a single strand of genetic material called RNA, and the monkeypox virus carries its genetic code in the DNA, which is double-stranded. That is the first major difference. Also, the monkeypox virus is much larger than the one that causes Covid-19, and it produces proteins that disrupt the defenses in the human immune system. It has been found in studies that they look like little bricks," he told <u>indianexpress.com</u>.

Does monkeypox spread through monkeys?

Discovered in colonies of monkeys in 1958, the virus is normally seen in African countries, even though monkeys aren't likely to be the source. It is mainly spread through rodents like squirrels, said Dr Ladhani, stressing that people can spread it to one another through contact with "body fluids or bites of infected rodents, and squirrels, or if a person comes in contact with the body fluid or legions on the skin or the mucosal surfaces such as the cheeks in the mouth".

It is also speculated that the disease is also sexually transmitted among men who are sexually active with the same gender. However, Dr Ladhani said, "It is not generally considered to be a route of transmission, but that is what is being speculated in the wake of the rising cases."

Symptoms

Monkeypox presents flu-like symptoms such as fever, headache, but the one symptom that differentiates it from Covid-19 is the presence of rash and swelling of the lymph nodes which develops after one or three days. These rashes begin as flat lesions which then become filled with pus; they could become scabs and dry out in two to four weeks. So, incubation period can be around seven to 15 days and the symptoms are self-limiting and can last from anywhere between two to four weeks. The fatality rate known is around 10 per cent, according to the WHO. "In case of Covid, the symptoms are more flu-like, like fever, headache, and runny nose. And if not contained, it can lead to breathlessness, loss of taste, and loss of smell," he said

While monkeypox too has flu-like symptoms, it is more of fever, headache, body aches with

lymph node enlargement and the rashes and the skin lesions, as described.

Diagnosis and treatment

Diagnosis of monkeypox is specifically through microscopy, said Dr Ladhani. In two to three weeks, the person may recover.

"This disease can be easily contained and giving vaccination to the whole population at this point in time may not be necessarily unlike <u>Covid-19</u>. The treatment is mainly supportive and symptomatic, however, the person has to be isolated for two to three weeks, and they normally recover by themselves," Dr Ladhani mentioned.



A healthcare worker collects the swab sample for Covid-19 test. (Express Photo by Kamleshwar Singh)

Is a community spread possible?

While monkeypox is also spread by coughing, according to Dr Ladhani, the droplets are very large compared to Covid-19 where they are very small and spread only within a few feet. "So, these particles do not spread very far. As such, for a person to spread it, there has to be a prolonged contact. However, it is nothing like Covid-19 where a short contact or a small duration of contact can also spread it. So it's unlikely, that people who very suffer from monkeypox pass it on to a large number of people, who can pass it on further," he explained.



காசநோயின் வகைகளை அறிய காத்திருக்க வேண்டாம்: கோவையில் ஆய்வகம் 'ரெடி'

மே 30, 2022 06:56



மருத்துவமனையில் கோவை: கோவை அரசு காசநோயின் வகைகளை கண்டறியும் இடைநிலை குறிப்பு ஆய்வகம் விரைவில் முழு பயன்பாட்டுக்கு வரவுள்ளதால் நோயாளிகள் பரிசோதனை அவசியம் முடிவுகளுக்காக காத்திருக்கும் முழுவதும் காச நோயை, 2025ம் இருக்காது.நாடு ஆண்டுக்குள் ஒழிப்பதற்கு மத்திய அரசின்கீழ், தேசிய காசநோய் ஒழிப்புத்திட்டம் செயல்படுத்தப்படுகிறது...

இத்திட்டத்தின் வாயிலாக கோவை அரசு மருத்துவமனை, பொள்ளாச்சி அரசு மருத்துவமனையில் 'ஜீன் எக்ஸ்பெர்ட்' ஆய்வகங்கள் செயல்பட்டுவருகின்றன. மேலும், நடமாடும் ஆய்வங்களும் செயல்படுகின்றன.

ஆரம்ப நாட்களின் காச நோயாளிகளின் தன்மை, பரிந்துரைக்க வேண்டிய மருந்துகள் குறித்த தகவல்களை அறிய நோயாளிகளின் மாதிரிகள்,

சென்னையில் உள்ள ஆய்வுக்கூடங்களுக்கு பரிசோதனை அனுப்பட்டு வந்தன. முடிவுக்காக காத்திருக்க வேண்டி இருந்ததால், நோயாளிகளுக்கு மருந்து, ஆலோசனை தேவையான வழங்குவதில் தாமதம் ஏற்பட்டுவந்தது. இந்நிலையில், நோயாளிகளின் வசதிக்காக கோவை அரசு மருத்துவமனையில் இடைநிலை குறிப்பு ஆய்வகம் அமைக்கப்பட்டுள்ளது. தற்போது

சமீபத்தில், சோதனை முறையில் இந்த ஆய்வகத்தில் பரிசோதனைகள் மேற்கொள்ளப்பட்டு வருகின்றன. வரும் நாட்களில் அனைத்து விதமான பரிசோதனைகளும் மேற்கொள்ளும் வகையில், இந்த ஆய்வகம் முழு பயன்பாட்டுக்கு வரவுள்ளதால், நோயாளிகள் நிம்மதி அடைந்துள்ளனர்.

தேசிய காசநோய் தடுப்பு திட்ட ஒருங்கிணைப்பாளர் தேன்மொழி கூறுகையில், ''காசநோயாளிகளிடம் 'சென்சிடிவ்', 'ரெசிஸ்டென்ஸ்' என, இரண்டு வகை பாதிப்புகளில் எது என்பதை கண்டறிந்து அதற்கேற்ப சிகிச்சை அளிக்கப்படுகிறது. 'ரெசிஸ்டென்ஸ்' வகையான காசநோய் பாதிப்புகளை கண்டறிய நோயாளிகளின் மாதிரிகள் சென்னையில் ஆய்வகத்துக்கு உள்ள அனுப்பப்படுகிறது. இதன் முடிவுகள் கிடைக்க, இரண்டு முதல் நான்கு வாரம் ஆகும். முடிவுகள் கிடைத்தவுடன் அதற்கேற்ப நோயாளிகளுக்கு மருத்துகள் வழங்கப்படும். தற்போது 'ரெசிஸ்டென்ஸ்' வகைகளை கண்டறிய கோவை அரசு குறிப்பு மருத்துமனையில் இடைநிலை ஆய்வகம் அமைக்கப்பட்டுள்ளது. ''முதலில், 50 நபர்களின் மாதிரிகள் சேகரிக்கப்பட்டு சோதனை மேற்கொள்ளப்பட்டு வருகிறது. விரைவில், ஆய்வகம் முழு பயன்பாட்டுக்கு வரும்," என்றார்.

THE MOR HINDU

Cancer hospital's initiative to help tobacco farmers grow alternative crops

MYSURUMAY 29, 2022 13:28 IST

More than 15,000 high-grade saplings and over 8,000 saplings of lucrative seasonal fruits had already been supplied to the farmers free of cost under the project



A cancer hospital has taken the initiative to come up with an alternative farming project in Hunsur, one of the tobacco-growing hubs in the Mysuru region, which encourages tobacco farmers to grow sandalwood and other seasonal fruits.

Sharing the details ahead of the World No Tobacco Day on May 31, the Chairman of HCG, a network of cancer care hospitals, Dr. B. S. Ajaikumar said the project covers a total of 50 acres in the first phase, involving 50 tobacco farmers, each of whom had pledged one acre each of their land for growing sandalwood and other seasonal horticultural crops like guava, sapota etc.

More than 15,000 high-grade saplings and over 8,000 saplings of lucrative seasonal fruits had

already been supplied to the farmers free of cost under the project. "We are joining forces with agronomists, ecologists, medical practitioners and other relevant experts to guide the decisionmaking at every step of the process", he said.

For long, the non-availability of a viable alternative to the tobacco crop has put paid to the efforts of the Government, NGOs, and antitobacco campaigners to reduce tobacco cultivation in Mysuru, which is known for producing fine quality Virginia tobacco that enjoys an international market.

HCG's independent think tank Antardhwani, which is implementing the project, had taken the initiative to identify crops that can be grown instead of tobacco in the regions of different climatic and soil conditions while at the same time assure market guarantee of the produce and sensitize farmers about the ill-effects of growing tobacco on health and environment.

According to statistics shared by Antardhwani, the cost of one kg of sandalwood is anywhere between ₹ 28,000 to ₹ 30,000. Besides, the 8 kg of firewood needed to cure 1 kg of tobacco leaves will also be saved, thereby reducing deforestation.

Explaining why a cancer hospital was fighting tobacco and putting its own business at stake, Dr. Ajaikumar said they got into oncology to save lives and cure people of the disease and not for business. "Now, it's time to eliminate the root cause of cancer, which is tobacco. That is when we doctors will actually realise our dream of saving as many lives as possible", he said.

Citing the 2022 Tobacco Atlas released last week, Dr. Ajaikumar said there were 1.1 billion cigarette smokers in the world, besides an additional 200 million who use other tobacco products.

In India, an estimated 13.5 lakh people had lost their lives due to tobacco consumption last year,

a majority of whom were afflicted with cancer. While the total number of smokers in India has been put at 99.5 million, the number of smokeless tobacco users is 199.3 million.

He said India is the second-largest consumer of tobacco in the world, accounting for almost half of all oral cancers and the highest burden of tuberculosis globally. Yet, tobacco remains the most widelv available addictive single substance and can be easily purchased anywhere in India. India is also the third-largest producer of tobacco in the world with Karnataka along with Andhra Pradesh, Gujarat, and Uttar Pradesh accounting for almost 80% of the production, said a statement issued by Antardhwani.

THEMOMHINDU

In first year of lockdown, more died of other respiratory diseases than COVID-19

NEW DELHIMAY 26, 2022 17:03 ISI Vijaita Singh | Bindu Shajan Perappadan

The medical certification of cause of death report says that 1,60,618 deaths in 2020 were due to COVID-19 which differs from government's official toll of 1.49 lakh.

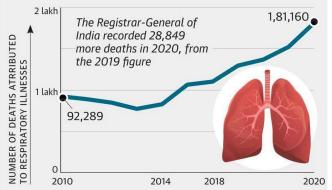
The certified deaths are other than those caused by COVID-19 virus, also a respiratory disease that has been separately recorded in the report as "Deaths reported under Codes for Special Purposes (Covid 19 Deaths)." At 1,60,618 deaths, the report said that this newly introduced major group is the third leading cause group recording 8.9 % of the totalmedically certified deaths at national level. The Union Health Ministry, however reported 1.49 lakh COVID-19 deaths in 2020.



The total number of deaths, from all causes, in 2020 was 81.2 lakh.

The recent World Health Organisation's (WHO) report on excess mortality rate due to Covid-19 notes that India's official death toll is an undercount. The report pegged India's excess mortality (people who probably would not have died if there was no pandemic) for 2020 and 2021 at 47.4 lakh. These are the highest, by far, for any country and comprise nearly a third of the 15 million such deaths globally.

The Health Ministry, while questioning and objecting to the methodology used by WHO to arrive at its figures, maintained that India officially estimated 4.8 lakh cumulative deaths linked to COVID-19 as of December 2021, which would mean that the WHO estimate is almost 10 **Short of breath** In 2020, India recorded a 10-year high in the number of deaths caused by respiratory diseases. The chart shows the number of deaths linked to respiratory diseases in the past decade



times the government count. As of May, <u>India's</u> official COVID-19 death toll is 5.2 lakh.

Excess mortality includes <u>deaths associated with</u> <u>COVID-19 directly</u> (due to the disease) or indirectly (due to the pandemic's impact on health systems and society).

India earlier this month released birth and death registration data from 2020 that reported 4.75 lakh excess deaths from all causes in 2020 over 2019. This Civil Registration System (CRS) data only counts deaths registered and doesn't break down causes of death. The WHO, on the other hand, has estimated nearly 8.2 lakh excess deaths from all causes

According to the MCCD report. those above 70 years were the worst affected by the respiratory diseases accounting for the highest incidences of deaths- 47,292 deaths or 29.4 % of total registered medically certified deaths. This was followed by 55-64 years reporting 23.9 % deaths, the age group 65-69, having class interval of only 5 years also reported significant number of deaths- 14.5 %, the report said. "The major number of deaths is concentrated in the age group of 45 years and above constituting 82.7 % of total deaths in the group," the report said.

he report on MCCD-2020, is based upon 18,11,688 total medically certified deaths. As per

annual Report on Vital Statistics of India based on Civil Registration System, 2020, the number of registered deaths at national level is 81,15,882.

The report said that medically certified deaths account for 22.5 % of total registered deaths at national level but after taking into consideration, any kind of medical attention received by the deceased at the time of terminal illness, it increased to 54.6 %.

Around 5.7 % of **total medically certified death** has been reported in **infants**.

"Certain Infectious and Parasitic Diseases," mainly constituted by septicemia and <u>tuberculosis</u> accounted for 7.1% of total medically certified deaths. At 62,759 deaths, septicemia accounted for 3.5% of the total such deaths while 29,421 people died of tuberculosis.

Maximum number of people died of diseases of circulatory system" comprising diseases of pulmonary circulation and others forms of <u>heart</u> <u>diseases</u>. Nearly 5.8 lakh deaths or 32% deaths were due to pulmonary or hearth diseases.



2023-க்குள் ருபெல்லா இல்லாத தமிழகம்: சுகாதாரத் துறையின் திட்டம் என்ன?

Last Updated : 27 May, 2022 03:58 PM

<u>கண்ணன் ஜீவானந்தம்</u>

சென்னை: 2023-ஆம் ஆண்டுக்குள் தமிழகத்தில் ருபெல்லா நோயை முழுவதும் ஒழிக்க தமிழக பொது சுகாதாரத் துறை திட்டமிட்டுள்ளது. இது தொடர்பான திட்டங்களை வகுக்க சுகாதாரத் துறை அதிகாரகளுக்கான பயிரங்கலம் சென்னையில் நடைபெற்றது.



குழந்தைகள் மற்றும் கர்ப்பிணி தாய்மார்களுக்கு 11 வகையான தடுப்பூசி செலுத்தப்படுகிறது. இதன்படி மஞ்சள் காமாலை, தட்டம்மை, போலியோ, ருபெல்லா, காசநோய், தொண்டை கக்குவான் இருமல், வயிற்றுப் உள்ளிட்ட போக்கு அடைப்பான், நோய்களில் பாதுகாக்கும் வகையில் இருந்து தடுப்பூசிகள் செலுத்தப்படுகின்றன.

தமிழகத்தில் ஒவ்வொரு ஆண்டும் 9.31 லட்சம் குழந்தைகள் மற்றும் 10.21 லட்சம் கர்ப்பிணி பெண்களுக்கு தடுப்பூசி செலுத்தப்படுகிறது. கடந்த 3 ஆண்டுகளாக 99%, 97% மற்றும் 97% தடுப்பூசி செலுத்தப்பட்டுள்ளன.

4-வது தேசிய சுகாதார மற்றும் குடும்ப நல ஆய்வில் முடிவில் தமிழகத்தில் முழுமையாக தடுப்பூசி பெற்ற குழந்தைகளின் சதவீதம் 76.1 ஆக இருந்தது. 4-வது தேசிய சுகாதார மற்றும் குடும்ப நல ஆய்வில் முடிவில் இது 90.4 சதவீதமாக உள்ளது.

இந்நிலையில், தடுப்பூசியால் தடுக்க கூடிய நோய் பாதிப்பை கண்டறிந்து நடவடிக்கை எடுக்கவும், 2023-ம் ஆண்டுக்குள் தட்டம்மை இல்லாத தமிழ்நாட்டை உருவாக்க தமிழக சுகாதாரத்துறை முடிவு செய்துள்ளது. இது குறித்து அனைத்து மாவட்ட சுகாதாரத் துறை துணை இயக்குனர்களுக்கான 2 நாள் பயிலரங்கம் சென்னையில் நடைபெற்றது. இந்தக் கூட்டத்தில் உலக சுகாதார நிறுவனம், மத்திய, மாநில அரசுகளை சுகாதாரத்துறை அதிகாரிகள் கலந்து கொண்டனர். இதில், தமிழகத்தில் உள்ள தடுப்பூசி திட்டத்தின் செயல்பாடு எந்த நிலையில் உள்ளது, நகர்புறத்தில் தடுப்பூசி செலுத்திவதில் உள்ள சவால்கள், கரோனா காலத்தில் ஏற்பட்ட தொய்வை எப்படி சரி செய்வது, பள்ளிகளுக்குச் சென்று தடுப்பூசி செலுத்துவது உள்ளிட்டவை தொடர்பாக விரிவாக ஆலோசனை நடத்தப்பட்டது.

கரோனா தொற்று காலத்தில் முறையாக தடுப்பூசி செலுத்தாத காரணத்தால் பல நாடுகளில் ருபெல்லா நோய் பாதிப்பு அதிகரித்து வருவதாக உலக சுகாதார நிறுவனம் தெரிவித்து இருந்தது.

இந்நிலையில், தமிழகத்தில் 2023 ஆண்டுக்குள் தட்டம்மை, ருபெல்லா இல்லாத மாற்றுவதற்கான செயல் திட்டம் குறித்து விரிவாக விவாதிக்கப்பட்டது. குறிப்பாக, ருபெல்லா பாதிப்பை எப்படி கண்டறிவது, தற்போது பல நாடுகளில் ருபெல்லா தடுப்பூசியின் செலுத்தப்பட்டுள்ள நிலை ஆகியவை குறித்து உலக சுகாதார நிறுவனம் அதிகாரிகள் தங்களின் கருத்துகளை தெரிவித்துள்ளனர்.

இதனைத் தொடர்ந்த இந்தத் தடுப்பூசி திட்டங்களின் செயல்பாடுகளை தமிழகத்தில் எவ்வாறு அதிகரிக்க வேண்டும். கண்காணிப்பு பணிகளை மேற்கொள்ள ஒருங்கிணைப்பு அதிகாரியை நியமிப்பது, இதில் உள்ள சவால்கள், புள்ளி விவரம் சேகரித்தல் தொடர்பான விவாதிக்கப்பட்டது.

இந்தக் கூட்டத்தை அடிப்படையாக ஒரு செயல் திட்டம் தயாரிக்கப்பட்டு தடுப்பூசி திட்டங்கள் மற்றும் ருபெல்லா நோயை முற்றிலும் தடுப்பது தொடர்பான பணிகளை தமிழக பொது சுகாதாரத் துறை மேற்கொள்ளும் என்று பொது சுகாதாரத் துறை அதிகாரிகள் தெரிவித்தனர்.

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Govt studying BCG vaccine use as Covid booster shot after Covaxin

...controlled trial to determine if it reduced incidence or severity of the viral disease.

The trial was discussed during a meeting, according to minutes seen by HT, and is based on past signs that the BCG vaccine may offer some benefit in fighting of Covid-19. The new proposal concerns with using it as a booster.

"The proposal was floated in one of the task force meetings this year. There have been studies that found BCG showing some promise against Covid-19 among elderly. The fresh proposal was meant to see how well it works as a booster in those who have taken Covaxin as their primary dose," said one of the members of the task force aware of the matter, requesting anonymity.

BCG vaccine primarily provides protection against tuberculosis and has been administered to newborns as part of Centre's National Immunization Programme for the least 50 years. The dose is a live attenuated vaccine strain of mycobacterium bovis, which is meant to protect against mycobacterial infections such as tuberculosis and leprosy. The vaccine is also known to protect against heterologous – or more than one – infection of the pathogen it is designed against.

With BCG there have been two trials in India as well— one is to evaluate efficacy of BCG in reducing the incidence and severity of Covid-19 in the high-risk population. The other study has been to evaluate the effectiveness of BCG vaccine in reducing morbidity and mortality in elderly individuals in Covid-19 hotspots in the country. The Indian Council of Medical Research (ICMR) has been spearheading the studies.

In September last year, the ICMR also published a paper based on results of the second study (on elderly population) in the International Journal of Infectious Diseases which showed that the BCG could improve the response to vaccines directed against viral infections most likely by protecting against unrelated infections. This, they hypothesised, was because it seemed to play a key role in stimulating a kind of immune cell known as dendritic cells.

"We investigated the impact of BCG vaccination on the frequencies of dendritic cell (DC) subsets and type I and III interferons (IFNs) using whole blood and plasma samples in a group of elderly individuals (age 60-80 years) at one-month post-vaccination as part of our clinical study to examine the effect of BCG on COVID-19.... BCG vaccination was associated with enhanced DC subsets and IL-28A/IL-29 in elderly individuals, suggesting its ability to induce non-specific innate immune responses," read the paper.

Dendritic cells are the most effective antigenpresenting cells – these cells gobble up a pathogen, and display their clusters in a process that helps trigger the next stage of the immune response, known as the adaptive immunity, which works by learning traits about the pathogen to fight it.

Experts say conducting a trial locally is the best way to know the benefits of the vaccine against Covid-19.

"BCG has shown promise in various studies against unrelated infections. Covid is a new and complex disease, and we are trying almost everything that shows some effect. Conducting a proper clinical trial is the best way to know whether the vaccine is solving the intended purpose or not. It will not harm; it may actually benefit. Plus, BCG coverage in India is also not uniform; there could be many who did not receive it and for those it may benefit more. Although I am not sure it will enhance boosting for those who have already taken the vaccine once. There's no harm in trying," said Dr Avadhesha Surolia, molecular biophysicist, Indian Institute of Science.

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