



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Friday 20240830

Polio (Hindustan Times: 20240830)

<https://www.hindustantimes.com/lifestyle/health/wasnt-polio-wiped-out-why-it-is-still-a-problem-in-some-countries-101724928759787.html>

Wasn't polio wiped out? Why it is still a problem in some countries

Polio was eliminated from most parts of the world as part of a decadeslong effort by the World Health Organisation and partners to wipe out the disease. But polio is one of the world's most infectious diseases and is still spreading in a small number of countries. The WHO and its partners want to eradicate polio in the next few years.

Until it is gone from the planet, the virus will continue to trigger outbreaks anywhere children are not fully vaccinated. The recent polio infection in an unvaccinated baby in Gaza is the first time the disease has been reported in the territory in more than 25 years.

What is polio?

Polio is an infection caused by a virus that mostly affects children under 5. Most people infected with polio don't have any symptoms, but it can cause fever, headaches, vomiting and stiffness of the spine. In severe cases, polio can invade the nervous system and cause paralysis within hours, according to the WHO. The UN agency estimates that 1 in 200 polio cases results in permanent paralysis, usually of the legs. Among children who are paralysed, up to 10% die when their breathing muscles are paralysed.

The virus spreads from person to person, entering the body through the mouth. It is most often spread by contact with waste from an infected person or, less frequently, through contaminated water or food.

Just how bad was polio in the past?

Very bad. Polio has existed for centuries; ancient Egyptian hieroglyphics show children walking with canes, with the wasted limbs characteristic of polio victims.

Before the first vaccine was developed in the 1950s, polio was among the most feared diseases. An explosive 1916 outbreak in New York killed more than 2,000 people and the worst recorded US outbreak in 1952 killed more than 3,000. Many people who survived polio suffered lifelong consequences, including paralysis and deformed limbs. Some

people whose breathing muscles were paralysed required “iron lung” chambers to help them breathe.

When did the eradication campaign begin?

WHO passed a resolution to eradicate polio in 1988, spurred on by the success of eliminating smallpox eight years earlier. Their original target was to wipe out polio by 2000. The WHO — along with partners including the US Centres for Disease Control and Prevention, UNICEF and Rotary International — boosted the production of an oral vaccine and rolled out widespread immunisation campaigns. Polio cases dropped by more than 99%.

Afghanistan and Pakistan are the only countries where the spread of polio has never been stopped. There are also outbreaks in more than a dozen other countries, mostly in Africa. WHO and partners now aim to wipe out polio by 2026.

Why has it taken so long?

It's extraordinarily difficult. Stopping polio outbreaks means vaccinating at least 95% of the population everywhere, including in conflict-ridden countries and poor regions with broken health systems and other priorities.

The oral vaccine is cheap, easy to use and is better at preventing entire populations from becoming infected. But it contains weakened, live polio virus and in very rare cases can spread and cause polio in unvaccinated people. In even rarer instances, the live virus from the vaccine can mutate into a new form capable of starting new outbreaks.

Health authorities have become more successful in reducing the number of cases caused by the wild polio virus. Vaccine-related cases now cause the majority of infections worldwide.

“The problem with trying to eradicate polio is that the need for perfection is so great and there are so many weak links,” said Scott Barrett, a Columbia University professor who has studied polio eradication. “The technical feasibility is there, but we live in a vastly imperfect world.”

Ulcers and Sores (Hindustan Times :20240830)

<https://www.hindustantimes.com/lifestyle/health/ulcers-and-sores-your-mouth-may-be-trying-to-warn-you-about-lurking-internal-diseases-101724925118518.html>

Ulcers and sores? Your mouth may be trying to warn you about lurking internal diseases

Ulcers, cracks and sores are common in the mouth and usually they go away after a few days. However, when there are internal diseases, mouth ulcers, sores and cracks can be just the alarm bells you need. A recent study, conducted by Dan Baumgardt, University of

Bristol, suggests that our mouth issues may actually be means of communication for the body to show that something more sinister is lurking.

Mouth ulcers:

Pesky mouth ulcers are very common. They usually show up in the inner lining of the mouth or the tongue and can be extremely irritating. Aphthous ulcers are round or swollen in nature, and usually start off yellow before turning grey in colour. Usually, ulcers do not last very long and can be treated with simple painkillers. Sometimes mouthwashes and sprays can help too.

One of the most common causes of mouth ulcers is physical injuries due to bite in the inner cheeks and tongue. Hormonal disruption and vitamin deficiencies are also responsible. However, when mouth ulcers persist longer than three weeks, they should be treated immediately. Mouth ulcers near to the back of the throat, more than one centimeter in diameter and refusing to recover after three weeks can indicate oral cancer.

Recurrent ulcers:

While mouth ulcers and sores are extremely common, when they keep frequently happening over a short time, it should be taken seriously. Sometimes mouth ulcers can be caused by diseases that can affect multiple organs. Crohn's and celiac disease can cause frequent and multiple mouth ulcers. Some of the other symptoms are gastrointestinal symptoms, including abdominal pain and altered bowel habits.

Viral causes:

Viruses can also lead to the formation of dots and sores inside the mouth. Herpes simplex virus can produce cold sores. Foot and mouth disease—commonly seen in children—can also lead to rashes and blisters. Even measles can trigger formation of rashes inside the mouth.

Cracks:

Often soreness or dry cracks appear beside the lips. They are usually caused by dryness or some viral illness' reaction. However, when the cracks continue to hurt and bleed, it should be taken seriously—they can indicate Crohn's and celiac disease. Deficiencies of vitamins, minerals and iron can also show up as cracks beside the lips.

kidney (Hindustan Times: 20240830)

<https://www.hindustantimes.com/lifestyle/health/donating-a-kidney-is-even-safer-now-than-long-thought-study-shows-101724918466929.html>

Donating a kidney is even safer now than long thought, study shows

Safety isn't the only barrier to living donation. So is awareness, as many patients are reluctant to ask.

People who volunteer to donate a kidney face an even lower risk of death from the operation than doctors have long thought, researchers reported Wednesday.

The study tracked 30 years of living kidney donation and found that by 2022, fewer than 1 of every 10,000 donors died within three months of the surgery. Transplant centers have been using older data – citing a risk of 3 deaths per 10,000 living donors – in counseling donors about potentially deadly surgical complications.

“The last decade has become a lot more safe in the operating room for living donors,” said Dr. Dorry Segev, a transplant surgeon at NYU Langone Health. He co-authored the study published in the journal JAMA.

Newer surgical techniques are the key reason, said Segev, calling for guideline updates to reflect those safety improvements – and maybe increase interest in living donation.

“For them, this is even more reassuring to allow their friends or family to donate on their behalf,” Segev said.

Thousands of people die each year waiting for an organ transplant. It’s possible for living donors to give a one of their two kidneys or part of a liver, the only organ that regenerates.

With nearly 90,000 people on the U.S. list for a kidney transplant, finding a living donor not only shortens the yearslong wait -- those organs also tend to survive longer than ones from deceased donors.

Yet last year, just 6,290 of the nation’s more than 27,000 kidney transplants came from living donors, the most since before the pandemic. Safety isn’t the only barrier to living donation. So is awareness, as many patients are reluctant to ask. And while the recipient’s insurance covers medical bills, some donors face expenses such as travel or lost wages as they recover.

The NYU team analyzed U.S. records of more than 164,000 living kidney donations from 1993 through 2022 and found 36 post-surgical deaths. Most at risk were male donors and those with a history of high blood pressure.

Only five of those deaths occurred since 2013. That period coincided with U.S. transplant centers switching to minimally invasive kidney removal as well as adopting a better way to stop renal artery bleeding, Segev said.

“Over time, it’s a safe operation that’s become even safer,” important for would-be donors to know, said Dr. Amit Tevar of the University of Pittsburgh Medical Center, who wasn’t involved in the study.

But there are long-term risks to consider, too, he stressed -- including whether a donor’s remaining kidney is expected to last the rest of their life.

Long-term risks of kidney donation

The risk of a donor later experiencing kidney failure also is small and depends on such factors as obesity, high blood pressure, smoking and family history of kidney disease. Risk

calculators help doctors determine a potential donor's likelihood of later-in-life trouble, and transplant centers may have slightly different eligibility criteria.

“There’s no such thing as a moderate- or high-risk donor — either you’re perfect or you’re not,” is how Tevar puts the decision to accept or turn away a potential donor.

Doctors once thought young adults were the ideal living donor. But Segev said there’s a shift toward more older living donors because it’s easier to correctly predict that they won’t outlive their remaining kidney.

If a living donor later experiences kidney failure, they get priority for a transplant, he noted.

Diabetes (Hindustan Times: 20240830)

<https://www.hindustantimes.com/lifestyle/health/protein-before-carbohydrates-follow-this-order-to-combat-diabetes-doctor-explains-why-101724939319061.html>

Protein before carbohydrates; follow this order to combat diabetes: Doctor explains why

Diabetes is a chronic illness where the pancreas is unable to produce the enough amount of insulin required by the body. Or sometimes, the body is unable to use up all the insulin that is produced. Insulin helps in regulating blood sugar levels in the body. The most common symptoms of diabetes are fatigue, weight loss, blurred vision, excessive thirst and frequent urination. In some cases, there may not be any symptoms at all. There are two types of diabetes – type 1 diabetes and type 2 diabetes. However, with proper lifestyle and dietary changes, diabetes symptoms can be managed. In an interview with HT Lifestyle, Dr. Pramod Tripathi, Founder of Freedom from Diabetes explained how the order of food when we eat can help in combating diabetes symptoms.

Eat proteins and vegetables before carbohydrates:

“The order in which we eat can play a significant role in controlling sugar levels. Studies have shown that eating protein and vegetables before carbohydrates does work. Science suggests that since protein and vegetables take longer to digest, these postpone the release of glucose into the bloodstream, reducing the peak blood sugar spikes that usually follow a carbohydrate-heavy meal,” explained Dr Pramod Tripathi.

How can the order we eat help in diabetes management?

Improved glucose control: Slower digestion means a reduced risk of blood sugar spikes, leading to better overall glucose management.

Increased feelings of fullness: Protein and fiber help you feel fuller for longer, reducing the chances of overeating or making unhealthy food choices.

Better nutrient balance: Prioritising protein and vegetables ensure you're getting a balanced mix of essential nutrients, including vitamins, minerals, and antioxidants.

“Adopting this straightforward yet effective eating strategy can help you proactively manage diabetes and enhance overall health. Remember, it’s not just about what you eat but also the order in which you eat it,” added Dr Pramod Tripathi.

Cardiovascular (THE TIMES OF INDIA: 20240830)

<https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/understanding-cardiovascular-disease-risk-after-one-crosses-the-age-of-30/articleshow/112896177.cms>

Understanding cardiovascular disease risk over 30 years: Implications for blood pressure treatment decisions

Considering long-term cardiovascular risk over 30 years can enhance hypertension management. This approach allows for personalized treatment, early intervention, and sustained blood pressure control, providing a comprehensive strategy to prevent cardiovascular disease and improve patient outcomes. This shift from short-term goals offers a more thorough analysis of patient health and treatment needs.

Understanding cardiovascular disease risk over 30 years: Implications for blood pressure treatment decisions

Cardiovascular disease (CVD) remains a leading cause of morbidity and mortality worldwide, with high blood pressure (hypertension) being one of the most significant modifiable risk factors. Traditionally, the treatment of hypertension has been guided by short-term goals, focusing on immediate blood pressure (BP) control to prevent near-term events such as heart attacks or strokes.

However, emerging evidence suggests that considering long-term cardiovascular risk—over 30 years or more—can provide a more comprehensive approach to managing hypertension, leading to more personalized and potentially more effective treatment strategies.

The importance of long-term cardiovascular risk assessment

Cardiovascular risk assessment typically involves evaluating a patient's likelihood of experiencing a CVD event within the next 10 years. This approach has been instrumental in identifying high-risk individuals who might benefit from early intervention. However, it has limitations, particularly for younger patients or those with mildly elevated risk factors. A short-term risk model might underestimate the true lifetime risk of CVD, leading to under-treatment in some cases.

Assessing cardiovascular risk over a 30-year period provides a more accurate picture of a patient's long-term health trajectory. It allows clinicians to identify individuals who may not be at high risk in the short term but are likely to develop CVD later in life due to persistent risk factors like hypertension. This long-term perspective is especially valuable in guiding treatment decisions for younger patients who might otherwise be overlooked in standard short-term risk models.

Hypertension and lifetime cardiovascular risk

Hypertension is a well-established risk factor for CVD, contributing to the development of conditions such as coronary artery disease, heart failure, stroke, and chronic kidney disease. The relationship between blood pressure and cardiovascular risk is continuous, with no clear threshold below which risk is eliminated. Even modest elevations in BP can lead to significant increases in long-term CVD risk.

Long-term risk assessment underscores the importance of early and sustained BP control. For example, a 40-year-old with mildly elevated blood pressure might not meet the criteria for aggressive treatment based on a 10-year risk model. However, a 30-year risk model may reveal a significantly higher lifetime risk, suggesting that earlier intervention could prevent the development of CVD later in life. By considering the cumulative effects of hypertension over decades, clinicians can make more informed decisions about when to initiate treatment and how aggressively to manage BP.

Implications for blood pressure treatment strategies

1. Personalized treatment approaches: Long-term cardiovascular risk assessment supports a more personalized approach to hypertension management. Rather than a one-size-fits-all strategy, treatment can be tailored to an individual's specific risk profile, considering factors such as age, family history, and the presence of other risk factors. This approach allows for the optimization of treatment intensity and duration, potentially improving outcomes.

2. Earlier intervention: For younger individuals or those with mildly elevated BP, long-term risk assessment may justify earlier intervention. Starting treatment earlier can prevent the gradual accumulation of vascular damage, reducing the likelihood of developing CVD later in life. This approach is particularly relevant for patients with a family history of CVD or those with other risk factors, such as diabetes or high cholesterol.

3. Sustained blood pressure control: Long-term risk assessment highlights the importance of sustained BP control over time. Rather than focusing solely on achieving short-term targets, treatment plans should emphasize the maintenance of optimal BP levels throughout life. This may involve ongoing medication, lifestyle modifications, and regular monitoring to ensure that BP remains within a healthy range.

4. Informed decision-making: Patients often face decisions about starting or continuing antihypertensive treatment based on the perceived benefits and risks. Understanding their long-term cardiovascular risk can provide valuable context for these decisions, helping patients to appreciate the importance of BP control in preventing future CVD events. It also empowers patients to engage more actively in their care, making informed choices about their treatment options.

Challenges and considerations

While long-term cardiovascular risk assessment offers significant benefits, it also presents challenges. Accurate risk prediction over 30 years requires robust models that account for various factors, including changes in lifestyle, adherence to treatment, and the development of other health conditions. Additionally, the psychological impact of communicating long-

term risk to patients should be carefully considered, as some individuals may find the concept of lifetime risk overwhelming or difficult to grasp.

Moreover, long-term risk assessment should complement, not replace, short-term risk models. Both approaches have value, and their integration can provide a more comprehensive understanding of a patient's cardiovascular health, guiding more nuanced and effective treatment decisions.

Body organs (THE TIMES OF INDIA: 20240830)

<https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/herbal-remedies-that-can-regulate-your-thyroid-gland/articleshow/112867591.cms>

Body organs where microplastics accumulate and what they can do to health

Researchers have discovered microplastics in several human organs, including the brain, lungs, liver, kidneys, heart, and gastrointestinal tract, raising significant health concerns. These particles can lead to inflammation, oxidative stress, and disrupted cellular functions, potentially causing chronic diseases. Addressing this issue involves reducing plastic consumption and improving waste management systems.

Body organs where microplastics accumulate and what they can do to health

In recent years, the discovery of microplastics in various body organs has raised significant health concerns.

For the first time microplastics were detected in human placentas through a method called Raman microspectroscopy. These tiny plastic particles have been found in numerous organs, shedding light on their pervasive impact on human health.

Why are microplastics worrisome? It is because they can infiltrate various organs and tissues, potentially causing health issues.

These tiny particles, often less than 5 millimeters in size, can carry harmful chemicals and toxins, leading to inflammation, oxidative stress, and potential disruptions in cellular functions. They may contribute to chronic conditions such as respiratory issues, liver and kidney problems, and even impact immune and endocrine systems.

"There's much more plastic in our brains than I ever would have imagined or been comfortable with"

Microplastics are accumulating in human body organs and a recent study has found sizeable concentration of microplastics in 52 samples from routine autopsies from men and women in Albuquerque, New Mexico. The researchers were surprised to find up to 30 times more microplastics in brain samples than in the liver and kidney, reports have said. "There's much more plastic in our brains than I ever would have imagined or been comfortable with," the study's lead author Matthew Campen, a toxicologist and professor of pharmaceutical sciences at the University of New Mexico told The Guardian.

One of the most alarming discoveries is the presence of microplastics in the lungs. Studies have identified plastic particles in lung tissues from both autopsies and biopsies. This is particularly concerning given the lungs' role in filtering air and their exposure to airborne pollutants. Microplastics can enter the respiratory system through inhalation, especially in areas with high levels of air pollution. Their presence in lung tissues could potentially contribute to respiratory issues, including inflammation and chronic obstructive pulmonary disease (COPD).

Microplastics have also been detected in the liver

This is concerning as the liver is a vital organ responsible for detoxifying chemicals and metabolizing nutrients. Research indicates that these particles can accumulate in the liver, where they might disrupt normal cellular functions. This accumulation could lead to oxidative stress, inflammation, and alterations in liver function. Over time, this may increase the risk of liver diseases, including fatty liver disease and liver fibrosis.

Microplastics have been found in kidneys as well

The kidneys, essential for filtering blood and excreting waste products, are another organ where microplastics have been found. The presence of these particles in kidney tissues can impair renal function and contribute to inflammation. Persistent exposure could potentially lead to chronic kidney disease or exacerbate existing conditions. The kidneys' ability to filter and cleanse the body might be compromised by the accumulation of microplastics. Identification of microplastics in the heart is concerning

Recent studies have suggested that microplastics may also be present in the heart. While the full implications are still being researched, the presence of these particles in cardiac tissues could affect heart function. Microplastics might contribute to inflammation and oxidative stress, potentially leading to cardiovascular diseases. The impact on heart health remains a critical area of study, as any disruption in cardiac function can have severe health consequences.

Microplastics have been frequently found in the gastrointestinal (GI) tract

This is because ingestion is a common way microplastics enter the body. The particles can cause irritation and inflammation of the digestive tract. Long-term exposure may contribute to gastrointestinal disorders, such as inflammatory bowel disease (IBD) or other chronic digestive issues. There's also concern about the potential for microplastics to interfere with nutrient absorption and gut microbiota balance.

How exposure of body organs to microplastics can harm the health in long term

Microplastics can carry harmful chemicals, including additives and contaminants from their production process. These chemicals can leach into the body, potentially causing toxicity. For instance, some microplastics contain phthalates and bisphenols, which are known to be endocrine disruptors. Long-term exposure to these substances can interfere with hormone regulation and potentially increase the risk of reproductive and developmental issues, as well as certain cancers.

Microplastics may interfere with normal cellular functions. When these particles accumulate in organs, they can cause oxidative stress, disrupting cellular processes and

leading to damage. This disruption can affect the organ's ability to function properly, potentially leading to chronic diseases or worsening existing conditions.

The presence of microplastics in the body can impact the immune system's ability to function effectively. Chronic exposure to these particles can lead to an overactive immune response, potentially resulting in autoimmune diseases or increased susceptibility to infections. The immune system's constant engagement with microplastics may reduce its efficiency in fighting off other pathogens.

There is concern about the potential for microplastics to bioaccumulate in the body over time. Bioaccumulation occurs when substances build up in an organism's tissues faster than they can be eliminated. If microplastics accumulate in organs like the liver or kidneys, it could exacerbate their harmful effects and increase the risk of long-term health problems. How to manage this crisis?

One of the most effective ways to mitigate the health risks associated with microplastics is to reduce plastic consumption. Opting for alternatives to single-use plastics, such as reusable bags and containers, can help limit the amount of plastic waste. Supporting and participating in recycling programs also contributes to reducing plastic pollution. Enhancing waste management systems to better handle plastic waste can prevent microplastics from entering the environment. This includes improving recycling processes and reducing plastic leakage into natural ecosystems. Effective waste management practices can help minimize the production of microplastics and their potential impact on human health.

Fever (THE TIMES OF INDIA: 20240830)

<https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/sloth-fever-vs-west-nile-fever-know-the-difference-between-symptoms/articleshow/112902967.cms>

Sloth fever vs West Nile fever; know the difference between symptoms

Vector-borne diseases like Sloth fever and West Nile fever are increasing in the U.S., with cases of hospitalization reported. The Oropouche virus, carried by mosquito bites, presents with high fever and headaches. Similarly, West Nile fever can lead to severe neurological symptoms. Protection against mosquito bites is crucial, as there are no available vaccines.

Sloth fever vs West Nile fever; know the difference between symptoms

Sloth fever or Oropouche virus is spreading in the United States, with 30 cases in all, and at least three cases of hospitalization in the country. West Nile fever is also on the rise in United States, and recently top US infectious disease expert, Dr. Anthony Fauci became infected with it. A range of vector-borne illnesses is witnessing an uptick in the United States and some of the symptoms could overlap with each other.

Let's understand the difference between the symptoms of Oropouche fever and West Nile fever in this article.

What is sloth or oropouche fever?

A zoonotic disease transmitted from animals to humans, sloth fever got its name because scientists felt sloths were important in the disease's spread between insects and animals. The virus is transmitted between mosquitoes and vertebrate animals like sloths, primates, rodents and wild birds, as per CDC. The bites of infected midges and certain mosquitoes can transmit the virus from one person to the other.

Common symptoms of sloth fever

Sudden onset of high fever, severe headache, chills, muscle aches, and joint pains are some of the most reported symptoms of sloth fever. Other symptoms can include sensitivity to light, dizziness, pain behind the eyes, nausea, vomiting, and rash.

Severe symptoms of Oropouche fever

Symptoms last for about four to five days, but may recur up to ten days after initial recovery. Spots in the skin, nosebleeds, gum bleeding have been reported in about 16% of patients. Additionally, meningoencephalitis or life-threatening brain inflammation, has been observed in a small number of cases.

Are there any vaccines for Oropouche virus?

There are no vaccines to prevent or medicines to treat Oropouche fever currently.

How to prevent the fever

The best way to protect yourself from Oropouche infection is to prevent bug bites. Wear full-sleeved clothes and stay away from bugs.

West Nile fever

sloth fever vs west nile fever

West Nile virus is spread through the bite of an infected mosquito and can cause fatal neurological disease in humans. However, 80% of the infected people do not show any symptoms. According to WHO, West Nile Virus (WNV) is a member of the flavivirus genus and belongs to the Japanese encephalitis antigenic complex of the family Flaviviridae.

A person may get infected with bites from infected mosquitoes. Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood for a few days. The virus may also be transmitted through contact with other infected animals, their blood, or other tissues.

Symptoms of West Nile fever

Abdominal pain, headache, fever, sore throat, muscle aches, nausea, vomiting, diarrhea, swollen lymph nodes are among the common symptoms of West Nile fever.

Severe symptoms of West Nile Fever

Stupor, disorientation, tremors, seizures, paralysis, and coma are among the severe symptoms. It can also cause neurological illness like meningitis or inflammation in brain. However, only 20% of those affected by the virus show symptoms and at risk of these complications.

Are there any vaccines?

There are no vaccines to prevent or medicines to treat West Nile virus disease (West Nile) in people.

How to reduce risk?

You can reduce your risk by taking steps to prevent mosquito bites. Wear full-sleeved clothes and prevent mosquito breeding. Use repellants and mosquito nets whenever possible.

Cancer (Medical News Today: 20240830)

<https://www.medicalnewstoday.com/articles/new-rectal-cancer-treatment-may-reduce-risk-recurrence-avoid-surgery>

New rectal cancer treatment may reduce risk of recurrence, help avoid surgery

Scientists are testing new treatments for advanced rectal cancer. Luis Alvarez/Getty Images

A new treatment for locally advanced rectal cancer (LARC) has proved successful enough to avoid surgery and reduce the risk of recurrence, according to a new study.

Total neoadjuvant treatment (TNT) involves bouts of short-course radiotherapy followed by different rounds of chemotherapy.

Researchers in Sweden found that the treatment reduced the existence of tumors by twice the amount as previous approaches.

The treatment could reduce the need for complicated bowel surgery and the subsequent complications that ensue.

A new treatment for locally advanced rectal cancer (LARC) has proved successful enough to avoid surgery and reduce the risk of recurrence, according to a new study conducted at Uppsala University in Sweden and published in eClinicalMedicine Trusted Source.

Total neoadjuvant treatment (TNT) involves bouts of short-course radiotherapy followed by different rounds of chemotherapy.

The researchers followed 273 patients with high risk LARC at 16 hospitals from July 2016 to June 2020, and another 189 patients at 18 hospitals (including the original 16) during the same period. The patients received TNT and researchers found that the rates of tumor disappearance doubled from previous treatment regimens (from 14% to 28%), but also that there was no increase in the rate of recurrence.

Sweden, which has a population of about 10.5 million people, has about 2,000 people diagnosed with rectal cancer every year, and one-third of those have a high risk of recurrence.

Initial treatment for rectal cancer is often more than a month of radiotherapy or a combination of radiotherapy and concurrent chemotherapy. Surgery involves removing

part of the patient's bowel, which creates problems with bowel control and the need to install a stoma.

Bengt Glimelius, PhD, lead author of the study and professor of oncology at Uppsala University and a senior consultant at Uppsala University Hospital in Sweden, said in a press release that TNT's ability to attack tumors directly can provide relief from the invasive surgery and subsequent side effects.

"If the tumor disappears completely during treatment, surgery is not required. This means that the rectum is preserved and the need for a stoma and a new rectum is eliminated," Dr. Glimelius said.

"When part of the rectum is surgically removed, the new rectum does not quite understand that it should be able to refrain from frequently sending a signal to the brain that you need to use the toilet," he explained.

What sets TNT apart from other treatments for colorectal cancer?

Anne Mongiu, MD, PhD, FACS, FASCRS, co-director of the colorectal surgery program at Yale Cancer Center and Smilow Cancer Hospital and also an assistant professor of surgery (colon and rectal) at Yale School of Medicine, who was not involved in the study, told Medical News Today that rectal cancer treatment has been evolving since the 1980s, but that TNT's approach changes the order of treatment.

"Total Neoadjuvant Therapy (TNT) refers to giving a full regimen of chemotherapy (FOLFOX, FOLFOXIRI, FOLFIRINOX, or CAPEOX most commonly) and chemoradiotherapy (radiation therapy in combination with Capecitabine) used in the treatment of rectal cancer prior to surgery. The treatment modalities used in TNT are relatively established; TNT simply shifts the entirety of the treatment prior to surgery," Dr. Mongiu said.

"Chemotherapy was often given in the adjuvant (post-surgery) setting for those with positive lymph nodes to reduce the risk of metastatic disease. However, often patients did not get a full course of chemo or could not start it in a timely fashion after surgery if there were surgical complications," she continued.

"Therefore, in the 2010s, there were a number of trials which moved chemotherapy to the neo-adjuvant (pre-surgical) time frame. This increased overall compliance with chemotherapy and was shown to have an increase in complete pathologic response (pCR) whereby no residual tumor was identified in post-surgical pathology specimens," she said.

Nilesh Vora, MD, a board certified hematologist, medical oncologist, and medical director of the MemorialCare Todd Cancer Institute at Long Beach Medical Center in Long Beach, CA, who was also not involved in the study, told Medical News Today that TNT was a novel approach.

“The idea of giving neoadjuvant therapy means great compliance to the intended therapies and a greater chance of downstaging the tumor before surgery. This is novel compared with historical therapies for rectal cancer,” Dr. Vora said.

How accessible is TNT globally?

Glimelius, the study’s lead author, told MNT that total neoadjuvant treatment can be equally effective worldwide.

“The previous treatment was either radiotherapy alone or a combination with radiotherapy and chemotherapy simultaneously with chemotherapy, surgery, and postoperatively chemotherapy. TNT means all radiotherapy and chemotherapy before surgery and nothing afterwards,” Glimelius said.

“TNT is more or less taking over around the world. Could be provided worldwide. In the preceding randomized trial, seven countries, including the U.S. took part. No difference between countries,” he added.

Mongiu emphasized that while the treatment is theoretically accessible to people around the world, economic disparities will prevent it from happening.

“The underlying healthcare infrastructure in each country impacts the availability of TNT. Most first-world countries, including the United States, Canada, Europe, many Asian countries, and Australia, offer TNT as evidenced by their participation in the large randomized clinical trials on TNT,” Mongiu said.

“Lower income countries and those with unstable infrastructure may struggle to purchase/maintain the specialized equipment, trained multidisciplinary teams, and chemotherapy agents needed to administer TNT,” she added.

Alzheimer (The Tribune: 20240830)

<https://www.tribuneindia.com/news/health/why-prostate-cancer-raises-risk-of-alzheimer-in-men/>

Why prostate cancer raises risk of Alzheimer in men

Standard hormone therapy treatment used for prostate cancer may be adversely raising the risk of Alzheimer's disease in men with the cancer, according to a study on Thursday.

Androgen deprivation therapy (ADT) is used to treat prostate cancer. It reduces testosterone (the most common androgen), which the cancer needs to grow.

However, as androgen -- a key regulator of amyloid metabolism -- gets removed with the therapy, more amyloid is left to form the plaques that are a hallmark of Alzheimer's, explained researchers at the Medical College of Georgia at Augusta University in the US.

“We know that prostate cancer itself also largely affects men over age 65, which is a population that's already at a higher risk of Alzheimer's, simply due to their age,” said Qin Wang, director of the Programme for Alzheimer's Therapeutic Discovery at MCG.

But the role of ADT “is not largely understood”, she said, in the paper reported in the journal Science Advances.

To understand the link, the team created an animal model with Alzheimer's disease and cancer. The team then delivered the ADT for eight weeks, while monitoring androgen levels and tumour size; and changes in the blood to look for immune markers.

Next, the team developed other animal models -- a so-called wild type (without Alzheimer's or cancer), a group with just Alzheimer's, and a group with just cancer that received ADT therapy.

While there wasn't any “significant difference in the plaque load” at the end of eight weeks, they did find hyperactivity in “glial cells (that are part of the central nervous system) of the groups with just cancer and the groups treated with ADT”.

This indicated inflammation in the brain, Wang said.

Further, they found an increase in pro-inflammatory cytokines -- small proteins that trigger an increase in inflammation -- and a decrease in anti-inflammatory cytokines. This was particularly declined in the animals with Alzheimer's and cancer that received ADT.

Importantly, the animals' blood-brain barrier showed significant damage. “The ADT treatment is actually making the blood-brain barrier more permeable. That would explain why there is so much more inflammation in that group,” Wang said.

Using a combination of ADT and natalizumab -- a drug used to treat multiple sclerosis and Crohn's disease -- the team also treated the mice who had cancer, and those with Alzheimer's and cancer.

The treatment not only reduced the infiltration but subsequently improved the integrity of the blood-brain barrier. The pro-inflammatory cycle was also reduced, while the cognitive function improved.

“We now know that it's not just about the amyloid plaques. The immune system's response is the contributing factor here,” Wang said, calling for clinical trials in patients who are undergoing ADT for prostate cancer.

Diabetes (The Indian Express: 20240830)

<https://indianexpress.com/article/lifestyle/health/what-happens-when-you-suddenly-stop-taking-diabetes-sugar-medication-experts-9474558/>

This is what happens to the body when you suddenly stop taking diabetes medication

The silent nature of diabetes can be tricky and the individual with diabetes often may not feel anything till it is too late

We all know the importance of taking prescribed medicines for good health. But have you ever thought about what would happen when you think you feel better and no longer need them? That's exactly what we are here to tell you — especially those of you taking pills to manage your sugar level or diabetes.

According to the Indian Council of Medical Research (ICMR), India has around 101 million people living with diabetes, said Dr Manoj Chawla, consultant, diabetology, P.D. Hinduja Hospital and MRC, Khar, adding that it is a chronic condition warranting continuous care through lifestyle modification, monitoring, and medications and a failure to do so can have serious consequences on the blood sugar levels, leading to a rapid spike.

Agreeing, Dr Rajeev Gupta, director, internal medicine, CK Birla Hospital (R), Delhi stressed that there is no cure for diabetes. “Remission is possible only in a few cases, that too only in the early years by following vigorous lifestyle modification, weight loss, care, and prescribed medication. Uncontrolled diabetes very often may be asymptomatic, making many patients ‘feel fine’. However, that is an inaccurate way to assess one’s diabetes level. Conditions like diabetes warrant the continuity of medications as an interruption or sudden stoppage may lead to an increased risk of infections and the possibility of acute complications like diabetic ketoacidosis, a life-threatening condition characterised by the buildup of acids in the blood, which can lead to coma if not treated promptly,” explained Dr Gupta.

He added that the silent nature of diabetes can be tricky, and diabetics often may not feel anything till it is too late. “Stopping medications can also lead to glycaemic variability and increase chances of long-term complications like blindness, kidney failure, and leg amputations. There is also the possibility of muscle and weight loss, dehydration, fatigue, and medications losing efficacy due to interrupted care,” Dr Gupta told indianexpress.com.

blood sugar Here's what to note (Source: Getty Images/Thinkstock)

Furthermore, the risk of acute medical events like stroke and myocardial infarction (heart attack) increases significantly. “It's essential to manage diabetes with a consistent treatment plan to prevent these potentially dangerous outcomes. Always consult with a healthcare provider before making any changes to your medication regimen to ensure safe and effective diabetes management,” said Dr Chawla.

It is important for a person with diabetes to monitor the levels and follow their diabetologist's advise regarding medication adjustment and timely screening for complications at all times.

DISCLAIMER: This article is based on information from the public domain and/or the experts we spoke to. Always consult your health practitioner before starting any routine.

Nosebleeds Remedies (Navbharat Times: 20240830)

<https://navbharattimes.indiatimes.com/lifestyle/health/causes-of-nosebleeding-treatment-and-home-remedies/articleshow/112913163.cms>

Nosebleeds Remedies: इसे कैसर न समझें, इन 7 वजहों से अभी आ सकता है नाक से खून, 5 तरीके देंगे तुरंत राहत

नाक से खून आने की कई वजह हो सकती हैं, इसे अक्सर कैसर समझ लिया जाता है, अगर आगे कभी आपको यह दिक्कत हो तो, नीचे कुछ उपाय दिए गए हैं, जो आपको तुरंत ताहत दे सकते हैं।

नाक से खून निकलना मेडिकल टर्म में एपिस्टेक्सिस (Epistaxis) कहलाता है। नाक से खून निकलना वाकई देखने में खतरनाक लग सकता है। नाक से खून निकलना कई बार सीरियस मेडिकल प्रॉब्लम की ओर भी इशारा कर सकता है। नाक में कई सारी ब्लड वैसल्स होती हैं। ये सभी ब्लड वैसल्स नाक के पीछे की ओर स्थित होती हैं। ये ब्लड वैसल्स बहुत नाजुक होती हैं और आसानी से ब्लीड कर सकती हैं।

नाक से खून निकलना वयस्कों में कॉमन होता है, वहीं तीन से दस साल तक के बच्चों में भी नाक से खून निकलना कॉमन हो सकता है। नाक से खून निकलना दो प्रकार का होता है। पहला होता है एंटीरियर नोजब्लीड। जब नाक के फ्रंट के ब्लड वैसल्स ब्रेक हो जाती हैं और फिर ब्लीडिंग होने लगती है तो उसे एंटीरियर नोजब्लीड कहते हैं। जबकि पोस्टीरियर नोजब्लीड के दौरान नाक के डीपेस्ट पार्ट की ब्लड वैसल्स में समस्या हो जाती है।

नाक से खून निकलने के कारण

कोई वस्तु नाक में अटक जाए तब ब्लीड हो सकती है

केमिकल इरीटेंट की वजह से

एलर्जी के कारण

नाक पर चोट लगने से

बार-बार छींक आने से

नाक को ऊपर उठाने से

ठंडी हवा के कारण

अपर रेस्पिरट्री इन्फेक्शन के कारण

एस्पिरिन की ज्यादा खुराक लेने पर

नाक से खून निकलना किस कारण से होता है?

नाक से खून निकलना या फिर नोजब्लीड कई कारणों से हो सकती है। सडन और फ्रीक्वेंट नोजब्लीड रेयर केस में पाई जाती है। अगर आपकी नाक से अचानक से और तेजी से खून बह रहा है तो ये गंभीर समस्या हो सकती है। ड्राई एयर यानी सूखी हवा के कारण नाक से खून निकलना बहुत ही कॉमन है। ड्राई क्लाइमेट में रहने वाले लोगों के लिए नाक से खून निकलना आम बात मानी जाती है। नासल मेंबरेन के ड्राई हो जाने के कारण ये समस्या होती है।

नाक से खून निकले तो अपनाएं ये घरेलू उपाय

नीचे बैठें और नाक को हल्के से पिंच करें, फिर मुंह से सांस लें।

खून को साइनस और गले में बहने से रोकने के लिए आगे झुकें, पीछे झुकने से जी मिचलाना शुरू हो सकता है।

सीधे बैठे ताकि सिर ऊपर की ओर रहे। ऐसा करने से ब्लड प्रेशर कम हो जाता है और ब्लीडिंग धीमी हो जाती है।

नाक पर दबाव डालते रहना जरूरी होता है। आगे झुकें, और कम से कम 5 मिनट और 20 मिनट तक सीधे बैठे रहें, ताकि ब्लड क्लॉट हो जाए। अगर ब्लीडिंग 20 मिनट से अधिक समय तक रहता है तो तुरंत डॉक्टर से संपर्क करें।

नाक के आसपास आइस पैक को रगड़ा जा सकता है। ऐसा करने से रिलेक्स मिलेगा। जब नाक से खून निकल रहा हो तो अन्य गतिविधि करने से बचे।

डिस्क्लेमर: यह लेख केवल सामान्य जानकारी के लिए है। यह किसी भी तरह से किसी दवा या इलाज का विकल्प नहीं हो सकता। ज्यादा जानकारी के लिए हमेशा अपने डॉक्टर से संपर्क करें।

Rheumatoid Arthritis (Dainik Jagran: 20240830)

<https://www.jagran.com/lifestyle/health-discover-how-ayurveda-can-effectively-manage-rheumatoid-arthritis-new-research-reveals-the-scientific-basis-behind-ayurvedic-treatment-for-joint-pain-and-inflammation-23787652.html>

Rheumatoid Arthritis के इलाज में असरदार साबित हो सकता है आयुर्वेद, वैज्ञानिकों ने किया वजह का खुलासा

आयुर्वेद न सिर्फ रूमेटोइड अर्थराइटिस (Rheumatoid Arthritis) के लक्षणों को कम करता है बल्कि पेशेंट्स को नॉर्मलाइजेशन की बढ़ाने के लिए मेटाबॉलिज्म रेट में भी बदलाव को बढ़ावा देता है जो उपचार के पारंपरिक तरीकों को लेकर आशावादी नजरिया पैदा करता है। आइए जानते हैं कि क्यों रूमेटोइड अर्थराइटिस के इलाज के लिए वैज्ञानिक आयुर्वेदिक को मददगार मान रहे हैं।

रूमेटोइड अर्थराइटिस के इलाज में आयुर्वेद को लाभकारी माना जा रहा है।

ताजा स्टडी बताती है कि इस ऑटोइम्यून डिसऑर्डर से लड़ने में आयुर्वेद मदद कर सकता है।

वैज्ञानिकों की मानें, तो यह रूमेटोइड अर्थराइटिस के मैनेजमेंट को लेकर पहला अध्ययन है।

लाइफस्टाइल डेस्क, नई दिल्ली। हाल ही में, एक नई स्टडी ने आयुर्वेदिक की प्रभावशीलता को उजागर किया है। वैज्ञानिकों ने बताया कि इसकी मदद से रूमेटोइड अर्थराइटिस को जो कि एक ऑटोइम्यून डिसऑर्डर है और दुनिया भर में लाखों लोगों को प्रभावित कर रहा है, उसे मैनेज करने में आयुर्वेद बड़ी भूमिका निभा सकता है। बता दें, यह अध्ययन प्रतिष्ठित शोध संस्थानों के वरिष्ठ शोधकर्ताओं के एक ग्रुप ने किया है, जिसमें अर्थराइटिस ट्रीटमेंट एंड एडवांस्ड रिसर्च सेंटर (ए-एटीएआरसी), काया चिकित्सा विभाग, राज्य आयुर्वेदिक कॉलेज और अस्पताल, लखनऊ विश्वविद्यालय; जैव चिकित्सा अनुसंधान केंद्र (सीबीएमआर), एसजीपीजीआईएमएस परिसर, लखनऊ; विज्ञान और नवीन अनुसंधान अकादमी (एसीएसआईआर), गाजियाबाद शामिल हैं।

डॉ. संजीव रस्तोगी कहते हैं कि "यह स्टडी रूमेटोइड अर्थराइटिस के मामले में संपूर्ण तंत्र आयुर्वेद दृष्टिकोण (Ayurvedic Whole System) के साथ इलाज किए जाने पर मुमकिन रोगविज्ञान में बदलाव के नजरिए से जरूरी है। यह आयुर्वेदिक अवधारणाओं का समर्थन करता है, जहां एक रोग जटिलता को तोड़कर 'दोष' को सामान्य स्थिति में लाया जाता है।"

पबमेड-सूचीबद्ध शोध पत्रिका (PubMed-Indexed Research Journal), जर्नल ऑफ आयुर्वेद एंड इंटीग्रेटेड मेडिसिन (जेएआईएम) में प्रकाशित हुआ यह अध्ययन रूमेटोइड अर्थराइटिस के पेशेंट्स में जरूरी पैरामीटर्स में पर्याप्त सुधार की गुजाइश बताता है, बताया गया है कि रोग गतिविधि स्कोर (Disease Activity Score)-28 Erythrocyte Sedimentation Rate में उल्लेखनीय कमी आई है, साथ ही सूजन और टेंडर ज्वाइंट्स की कुल संख्या में भी कमी आई है।

यह भी पढ़ें- जोड़ों के अलावा अन्य अंगों को भी प्रभावित करता है **Rheumatoid Arthritis**, ऐसे करें इसे मैनेज

रूमेटोइड अर्थराइटिस के मैनेजमेंट को लेकर पहला अध्ययन

शोध ने रूमेटोइड अर्थराइटिस के रोगियों के मेटाबॉलिक प्रोफाइल का भी पता लगाया, उनकी तुलना हेल्दी पैरामीटर्स से की गई। अध्ययन की शुरुआत में, रूमेटोइड रोगियों ने कुछ मेटाबॉलिक आइटम्स के हाई लेवल का प्रदर्शन किया, जिसमें सक्सीनेट, लाइसिन, मैन्नोस, क्रिएटिन और 3-हाइड्रॉक्सीब्यूटाइरेट (3-एचबी) शामिल थे, साथ ही एलानिन के स्तर में कमी आई थी। हालांकि, एडब्ल्यूएस उपचार के बाद, ये मेटाबॉलिक संकेत स्वस्थ लोगों में देखे गए।

शोधकर्ताओं के अनुसार, यह पहला अध्ययन है जो स्पष्ट रूप से रूमेटोइड अर्थराइटिस के मैनेजमेंट में एडब्ल्यूएस की नैदानिक प्रभावशीलता को बताता है। आयुर्वेद की मदद से न सिर्फ इसके लक्षणों को कम किया गया बल्कि होमियोस्टैसिस के लिए अनुकूल एक चयापचय वातावरण को भी बढ़ावा दिया, जो रूमेटोइड अर्थराइटिस के रोगियों के लिए भविष्य में फायदेमंद साबित हो सकता है।