

MPOX PREPAREDNESS

Introduction mPOX (monkeypox), a viral zoonotic disease, has emerged as a significant public health concern globally. Its preparedness requires a comprehensive strategy encompassing surveillance, response, communication, and healthcare readiness to effectively manage and mitigate its impact. Surveillance and Early Detection Effective mPOX preparedness begins with robust surveillance systems to detect and monitor outbreaks. This involves strengthening disease reporting mechanisms, enhancing laboratory capacities for accurate diagnosis, and establishing efficient tracking systems for suspected and confirmed cases. Timely data collection and analysis are crucial for identifying patterns and potential outbreaks, allowing for rapid intervention and containment. Response and Containment Strategies A well-coordinated response plan is essential for managing mPOX outbreaks. This includes developing clear protocols for isolation and treatment of infected individuals to prevent further transmission. Health authorities must ensure adequate stockpiles of vaccines, antivirals, and personal protective equipment (PPE). Establishing quarantine and contact tracing procedures is vital for controlling the spread of the virus. Public health agencies should also create contingency plans for scaling up resources and services in response to surge scenarios.

Public Communication and Education Effective communication strategies are crucial for public awareness and engagement. Health agencies should provide clear, accurate, and timely information about mPOX, including symptoms, transmission methods, and preventive measures. Public education campaigns can help reduce stigma and encourage individuals to seek medical care promptly.

PM SHRI scheme : A Visionary Initiative in the Education Sector

ER. PRABHAT KISHORE

The Government of India has launched a centrally sponsored scheme PM SHRI (PM Schools for Rising India) in the education sector. This initiative is intended to prepare selected existing school of the country as PM SHRI schools, which will help showcase the implementation of all aspects of NEP 2020 and emerge as exemplary schools over a period of time.

These schools will be learning spaces in which every student fills welcomed and care for; where a safe and stimulating learning environment exists, a wide range of learning experiences are offered, good physical infrastructure and appropriate resources conducive to learning are available to all students. It will nurture the students in such a way that they become engaged, productive and contributing citizens towards building an equitable, inclusive and plural society. Under this scheme, a total of 14597 PM SHRI schools across the country will be qualitatively strengthened by providing them with dedicated, targeted and all-inclusive interventions to ensure holistic transformation and all-inclusive interventions to ensure holistic transformation at all levels, including access, quality, equity and inclusion. The aim of such schools would be to produce well-round individuals equipped with skills. More than 20 lakh students are expected to be the beneficiaries of the scheme.

The first and second phase of selection process through transparent challenge method has already been completed, in which a total of 10080 schools have been selected as PM SHRI schools. The third phase of selection process is going to be commenced from 15th April 2024. Pedagogy in these schools will be more experimental, integrated, play-based in foundational years, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible and enjoyable. Focus will be on the learning outcomes of every student in every grade i.e. assessment of quantitative, verbal and logical reasoning skills. Assessment at all levels will be based on conceptual understanding and application of knowledge to real-life situations and will be competency-based. Skill-based Aptitude test will be introduced for Vocational Education.

Assessment of the resource effectiveness in terms of availability, adequacy, appropriateness, and utilisation for each of the domains will be done and the gaps will be filled in a planned manner. Linkage with local industry will be incorporated for enhancing employability. To develop these schools as GREEN School, eco-friendly aspects like solar panels & LED lightings, nutrition gardens with natural farming, waste management, water conservation etc. will be incorporated. Efforts will be made to involve the community as well as alumni in the volunteer efforts by organising help sessions, career guidance and mentoring. By carefully tracking the students and their learning levels, universal participation will be ensured. Regular visits to these schools by other schools in the district will be organised to motivate them to adopt the interventions and become exemplary schools themselves. Adequate infrastructure, including toilets, clean drinking water, attractive spaces, electricity, computing devices with internet, library, sports material and recreational resources will be ensured so that teachers and students of all genders as well as disabilities receive a safe, inclusive and effective learning environment to teach and learn. The use of plastic will be restricted in PM SHRI schools. Children will be encouraged to wear uniforms made from locally sourced and sustainable materials.

The PM SHRI schools will have convergence with various existing schemes such as Samagra Shiksha for teacher's salary, quality inputs & digital resources etc., PM POSHAN for Mid-Day meal, ICDS for ECCE linkages, Jal Jeevan Mission for drinking water; National Child Labour Project (NCLP) for mainstreaming of child labour withdrawn & rehabilitated, Assistance to Disabled Persons (ADIP) for provision of Aids & Appliances, School Health Programme (SHP), Department of Rural Development for provision of playground, boundary wall, toilets etc., Department of Panchayati Raj for recycling of waste, Department of Telecom for extension of Bharat Net services to the schools, MSDE for skill initiatives and vocational education, Department of Sports & Youth Affairs for greater participation in Khelo India, Geo-tagging of schools for selection and monitoring of PM SHRI schools will be done with the support of Bhaskaracharya National Institute of Space Applications and Geo-informatics (BISAG-N).

The selected schools should have certain minimum benchmark-like own pucca building in good condition, barrier free access with safety norms, equipped with fire safety measures, separate toilets as well as hand washing facility for boys & girls, potable drinking water facility, power supply, library & sports equipment, Photo ID Cards to all teachers.

Also, enrolment at Elementary and Secondary/Senior Secondary level should be at least more than the state average enrolment for the category. The Elementary as well as the Secondary/Senior Secondary schools managed by the Centre/State/UT/Urban Local Bodies/KVS/NVS will be considered for selection under the scheme. PM SHRI schools will be selected through Challenge Mode, in which Schools will have to self-apply on the online Challenge Portal, which will be opened four times a year, once every quarter, for the first two years of implementation of the scheme. A maximum of two schools (one Elementary and one Secondary/Senior Secondary) will be selected per block/urban local bodies. States can create clusters around PM SHRI schools to enable the benefit to reach to more schools in the cluster. By setting high standards, these schools will become model for all other schools to follow. PM SHRI schools is a visionary and ambitious scheme in the education sector and will be vibrant schools focusing on the all round development of the students. They will provide leadership in their respective regions in providing high quality education in an equitable, inclusive and joyful environment that takes care of the diverse background multilingual needs and different academic abilities of children and makes them active participants in their own learning process.

(The author is a technocrat & academician)

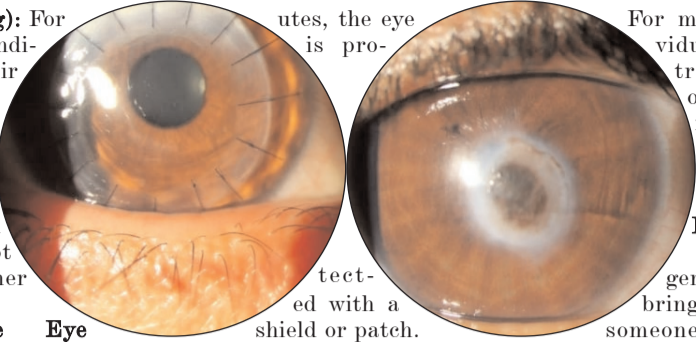
CORNEAL TRANSPLANTATION: A VISIONARY GIFT

DR ASHOK SHARMA



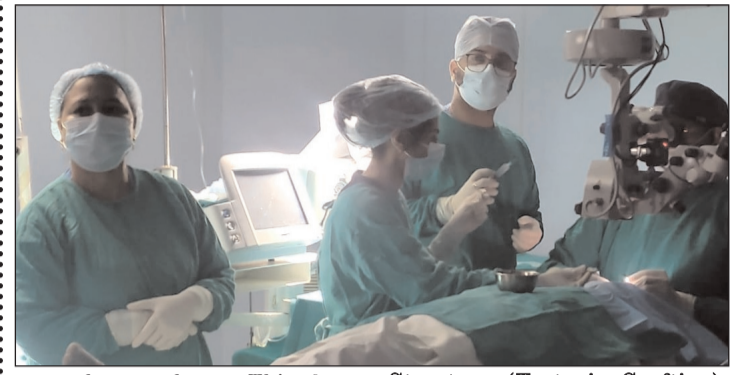
G M C Jammu is proud to host Corneal Awareness Fortnight, a dedicated event aimed at spreading awareness about the importance of corneal health and the life-changing impact of

(Optical Grafting): For patients with conditions that impair vision. *To Treat Infections (Therapeutic Grafting): When infected corneal tissue does not respond to other treatments. *To Restore Eye



For many of these individuals, a corneal transplant is the only solution, relying on the availability of healthy donor corneas. Why Eye Donation Matters Eye donation is a generous act that can bring the gift of sight to someone in need.

Where Does Eye Donation Occur? Eye donation can take place either in a hospital or at the deceased's home. The procedure is performed with great care to ensure no disfigurement. Whom to Contact? Family members should contact the State Organ and Tissue Transplant Organization (SOTTO). They



corneal transplants. This fortnight is an opportunity to educate, inspire, and mobilize our community to help those suffering from corneal blindness. By spreading knowledge and dispelling myths, we can encourage more people to become eye donors and give the gift of sight. Together, let's shine a light on the power of corneal transplants, support those in need, and take a step closer to a world where everyone can see the beauty of life. Understanding Corneal Transplantation: Corneal transplantation, also known as keratoplasty, is a surgical procedure where damaged or diseased corneal tissue is replaced with healthy donor tissue. This process can involve either a full-thickness replacement, called Penetrating Keratoplasty, or a partial-thickness replacement, known as Lamellar Keratoplasty or Endothelial Keratoplasty. Why is Corneal Transplantation Performed? Corneal transplantation can be performed for several reasons: *To Improve Vision

Structure (Tectonic Grafting): To maintain the integrity of the eye. *To Enhance Appearance (Cosmetic Grafting): To improve the eye's appearance in certain conditions. Who Needs Corneal Transplantation? This surgery is typically performed on patients suffering from:

- *Mechanical or chemical injuries to the eye
 - *Eye infections like keratitis
 - *Corneal opacity
 - *Post-cataract surgery edema
 - *Corneal dystrophies and degenerations
- The Procedure: The surgery is tailored to each patient's needs and can be done under local or general anesthesia. After the patient is anesthetized, the surgeon uses a speculum to keep the eyelids open and takes precise measurements to determine the amount of donor tissue required. The damaged corneal tissue is carefully removed, and the healthy donor tissue is sutured into place with fine stitches. After the procedure, which usually takes 30-45 min-



What to Expect After Surgery: Healing from corneal transplantation is a gradual process, and it may take up to a year for vision to fully stabilize. During this time, patients may need to wear contact lenses or eyeglasses and use prescribed eye drops. It's important to avoid any potential injury to the eye. If you notice any redness, irritation, pain, or a decline in vision, contact your ophthalmologist immediately, as these could be signs of graft rejection. Regular follow-ups are essential to monitor recovery.

Give the gift of sight: donate your eyes In a world where clear vision is often taken for granted, eye donation stands as a beacon of hope for those suffering from blindness. According to the World Health Organization, at least 2.2 billion people worldwide live with visual impairment, and 6-8 million of them suffer from corneal blindness. Corneal blindness occurs when the cornea, the transparent layer at the front of the eye, becomes damaged or diseased.



Unfortunately, many people are unaware of the importance of eye donation or are held back by misconceptions. Let's clear up some common myths and provide important information about eye donation.

Who Can Donate? Anyone can donate their eyes, regardless of age or gender. Even those with certain ocular conditions like refractive errors, cataracts, or systemic disorders such as diabetes and hypertension can donate. Who Cannot Donate? Individuals with conditions like hepatitis, AIDS, rabies, septicemia, encephalitis, leukemia, or lymphoma are not eligible to donate their eyes. When Can You Donate? Eyes can only be donated after death. A person can pledge their eyes during their lifetime, or the family can decide to donate after the person has passed away. Timing of Donation It's ideal to donate eyes within 6-8 hours of death. The retrieval process takes about 15-20 minutes.

will coordinate with the local eye bank to manage the process.

What to Do While Awaiting the Team? Keep the eyes closed with a moist cloth over them and turn off fans while turning on the AC, if available, to help preserve the tissue until the donation team arrives.

Illuminate Lives: Be the Light

Eye donation is a powerful act of compassion and generosity that offers a lifeline to those affected by corneal blindness. By choosing to donate your eyes, you can restore vision, improve lives, and leave a lasting legacy of kindness. Register as an eye donor, inform your loved ones of your decision, and help spread awareness. Together, we can break down barriers, spread the word, and give the gift of sight.

Be the light in someone's darkness, be the hope in someone's despair.

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War is No Solution: Lessons from the Bhagavad Gita

DR. ANKUSH MAHAJAN

As the world finds itself entangled in conflicts on multiple fronts, the fear of a potential third world war looms large. The ongoing Russia-Ukraine conflict, tensions between Israel and its neighboring nations, and other global flashpoints have led to widespread concern about the future of humanity. At such a critical juncture, it is imperative to revisit the timeless wisdom of the Bhagavad Gita, which, despite being a text born in the context of war, ultimately advocates for peace, understanding, and the resolution of conflicts through higher moral and spiritual principles.

The Current Global Scenario The 21st century was hoped to be an era of unprecedented peace and cooperation. Yet, as we navigate through 2024, the reality is far from the ideal. The Russia-Ukraine war, which began in 2022, has seen devastating consequences. Thousands have lost their lives, millions have been displaced, and the war shows no signs of abating. The global community watches with bated breath, fearing that the conflict could escalate into something far more catastrophic.

In the Middle East, Israel remains locked in perennial conflicts with its neighbors, with recent escalations bringing the region to the brink of another large-scale war. The situation is exacerbated by the involvement of global powers, each with their own strategic interests, further complicating any hope for peace.

Other regions, too, are not immune to conflict. Tensions in the South China Sea, the Korean Peninsula, and the persistent threat of terrorism contribute to a world on edge. In such a volatile environment, the idea of a third world war, once unthinkable, now seems alarmingly possible.

The Gita's Perspective on War: The Bhagavad Gita, one of the most revered texts in Hindu philosophy, is set on the battlefield of

Kurukshetra. It begins with Arjuna, a warrior prince, in a state of moral and emotional turmoil as he faces the prospect of fighting a war against his own kin. He is paralyzed by the futility of violence and the inevitable destruction that war brings. Krishna, his charioteer and guide, provides Arjuna with profound spiritual insights. While Krishna ultimately urges Arjuna to fulfill his duty as a warrior; the Gita's teachings are not a simple endorsement of war. Rather, they are a complex exploration of duty (dharma), righteousness, and the moral dilemmas that individuals and societies face. Krishna says to Arjuna in Chapter 2, Verse 47: "Karmanye vadhikaraste ma phaleshu kadachana, ma karma-phala-hetur bhur ma sangostvakarmani." ("You have a right to perform your prescribed duties, but you are not entitled to the fruits of your actions. Never consider yourself the cause of the results of your activities, nor be attached to inaction.") This verse highlights the essence of selfless action and underscores the importance of performing one's duty without attachment to the outcomes. It can be interpreted in the modern context as a call for leaders to act with righteousness, not for personal or national gain, but for the greater good of humanity. The Relevance of the Gita Today: In the contemporary world, where nations and leaders often resort to war as a means to achieve their ends, the Gita's message is more relevant than ever. The Gita teaches that war should never be the first option. It emphasizes the importance of dialogue, understanding, and the pursuit of peace through non-violent means.

Krishna's counsel to Arjuna in Chapter 3, Verse 21 is especially pertinent: "Yad yad aharati shreshthas tat tad evetarajanah, sa yat pramanam karute lokas tad anuvartate." ("Whatever action is performed by a great man, common men follow. And whatever standards he sets by exemplary acts, all the world

pursues.")

This verse is a reminder that the actions of world leaders have far-reaching consequences. If leaders choose the path of peace and diplomacy, others will follow. Conversely, if they choose war, the world is plunged into chaos.

The Human Cost of War: The ongoing conflicts in Ukraine, Israel, and other parts of the world serve as stark reminders of the devastating human cost of war. In Ukraine, cities have been reduced to rubble, and the humanitarian crisis continues to deepen. The Middle East, too, has seen untold suffering over decades, with no end in sight. Krishna emphasizes the sanctity of life in Chapter 10, Verse 20: "Aham atma gudakesha sarva-bhutasaya-sthitah, aham adha madhyam cha bhutanam anta eva cha." ("I am the Self, O Gudakesha, seated in the hearts of all creatures. I am the beginning, the middle, and the end of all beings.")

This verse teaches us to recognize the divine presence in every being. The loss of life in war is not just a physical destruction but an affront to the divine essence within all of us. The Gita's concept of non-violence (ahimsa) calls for the protection and preservation of life, urging us to find peaceful solutions to our differences.

The Path Forward As the world teeters on the edge of further conflict, it is crucial that we learn from the past and from the wisdom of the Bhagavad Gita. Diplomacy, dialogue, and mutual respect must be the cornerstones of international relations. The global community must work together to address the root causes of conflict, such as inequality, injustice, and the quest for power.

Krishna advises in Chapter 2, Verse 14: "Matra-sparshas tu kaunteya sitosna-sukhadukha-dah, agampayino 'hityas tams titikssava bharat." ("O son of Kunti, the non-permanent appearance of happiness and distress, and their disappearance in due course, are like the

appearance and disappearance of winter and summer seasons. They arise from sense perception, and one must learn to tolerate them without being disturbed.")

This verse teaches patience and tolerance, qualities essential for peace-building. In the face of global tensions, nations must learn to tolerate differences and work towards resolving conflicts without resorting to violence.

Conclusion: Choosing Peace Over War: The Bhagavad Gita's teachings offer a path out of the darkness of war and conflict. They remind us that war is not a solution; it is a failure of human wisdom and compassion. As we face the possibility of a third world war, we must choose the path of peace, guided by the timeless wisdom of the Gita. Krishna's words in Chapter 18, Verse 66 resonate as a final call to humanity: "Sarva-dharman parityajya mam ekam saranam vraja, aham tvam sarva-papebhyo mokshayishyami ma shuchah." ("Abandon all varieties of religion and just surrender unto Me. I shall deliver you from all sinful reactions. Do not fear.")

This verse is a reminder that true peace and security lie in surrendering to a higher power; in trusting the divine order and striving for righteousness. The current global situation demands not just political and military strategies, but a spiritual awakening. We must recognize the interconnectedness of all life and the futility of violence.

By embracing the Gita's teachings, we can hope to steer humanity away from the brink of war and toward a future of peace, harmony, and true understanding. The choices we make today will determine the world we leave for future generations. Let those choices be guided by the wisdom of the Gita, so that we may create a world where war is not an option, but peace is the only path.

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The Shrinking Y Chromosome: A Glimpse into Human Evolution

BHAVNEET KOUR



The Y chromosome, responsible for determining male sex in humans, has been the subject of extensive research due to its unique evolutionary path. Unlike other chromosomes, the Y chromosome has experienced significant reduction over millions of years, raising questions about its future and implications for human biology.

The Y Chromosome: A Brief Overview In humans, the Y chromosome is one of the two sex chromosomes, the other being the X chromosome. While females possess two X chromosomes, males have one X and one Y chromosome. The Y chromosome carries genes essential for male sex determination and reproduction, most notably the SRY gene, which triggers the development of testes.

The Shrinking Y Chromosome Over evolutionary time, the Y chromosome has undergone a dramatic reduction in size. Originally, it was comparable in size to the X chromosome and contained a similar number of genes. However, due to the lack of recombination with the X chromosome, the Y chromosome has lost many of its genes. Today, it retains only about 45-55 functional genes, compared to the approximately 1,000 genes found on the X chromosome.

This loss of genetic material is largely attributed to the Y chromosome's inability to repair itself effectively. Unlike other chromosomes, which can exchange genetic material with their homologous partners during cell division, the Y chromosome does not have a matching pair to recombine with. This isolation has led to the accumulation of mutations and the eventual loss of genes.

Implications of Y Chromosome Reduction The reduction of the Y chromosome has

sparked debates about its potential future. Some researchers suggest that if the current rate of gene loss continues, the Y chromosome could disappear entirely within a few million years. However, other scientists argue that the Y chromosome has stabilized and that the remaining genes are crucial for male fertility and survival.

The loss of the Y chromosome could theoretically lead to the extinction of males as we know them, but this scenario is highly speculative. Evolutionary pressures could result in the emergence of new mechanisms for sex determination, or other chromosomes might take over the functions currently performed by the Y chromosome.

Evolutionary Perspectives The shrinking of the Y chromosome is not unique to humans; it has been observed in other species as well. For instance, in some rodent species, the Y chromosome has disappeared entirely, and yet these species continue to thrive with alternative sex-determining systems. This suggests that

while the Y chromosome plays a vital role in human reproduction today, it may not be indispensable in the long term.

In an evolutionary context, the reduction of the Y chromosome might be seen as a natural consequence of its genetic isolation. The process is a reminder of the dynamic nature of genomes and how they can change over time in response to various evolutionary forces.

Conclusion The reduction of the Y chromosome in humans offers fascinating insights into the complexities of evolution and genetics. While its shrinking size raises questions about the future of male biology, it also highlights the adaptability of life. As researchers continue to study the Y chromosome, we may uncover new understanding about our evolutionary past and the potential directions for our species in the future.

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