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Editorial Desk

COVID-19 Pandemic and Organ Transplantation in India

Organ donation and transplantation during COVID-19 pandemic has been a challenge that has never been faced by the programme in all these years since its inception. The first three months saw hardly any transplant activities in the country. Most cities doing majority of transplants have been in the red zone and it was only Kerala that was less affected that managed to do some deceased donations followed by Pune and Hyderabad. From April to June 2020, this was the data –

- Kerala had six deceased donors that resulted in six pairs of corneas being donated, 11 kidney transplants, four liver transplants, and two heart transplants
- Pune had five deceased donors that resulted in four kidney transplants, five liver transplants, and two kidney-pancreas transplants
- Hyderabad had five deceased donors that resulted in four pairs of corneas being donated, six kidney transplants, and four liver transplants

The Indian Society of Organ Transplantation has during the pandemic issued two sets of guidelines and the second updated one was accepted by the National Organ and Tissue Transplant Organization (NOTTO) as national guidelines. These are available on their websites (www.isot.co.in and www.notto.gov.in). Almost all government tertiary care hospitals are serving COVID patients and the transplant programme is unlikely to start in these hospitals until the pandemic shows signs of receding. Recently a few private hospitals have restarted the programme. However before restarting the programme the transplant team needs to take into consideration the risk-benefit ratio. It needs to ensure that adequate protection, staffing and infrastructural support is available. Other considerations include the following- Decision making Process: If in certain organs the risk of death is higher due to waiting, for example, in a fulminant liver failure or a severely decompensated liver failure patient with a high MELD score or a sick heart or lung failure patient. With kidney transplants dialysis is always an option, however here too the cost of dialysis can be an issue for a patient who is ready for transplant. There is also the issue with safety of health care professionals and the danger of transmission of COVID-19 from patients to the potential recipients and donors that needs to be taken into consideration. Every unit needs to look at the current trends in their city and the available ICU facility in the hospitals before restarting a transplant programme. Consent Process: All transplant recipients and donors should fully understand the potential risk of COVID-19 infection during hospital stay and after transplant and then sign the fully documented informed consent form. Transplant Teams: Ideally if feasible the transplant team should define two teams which are separate and not working together and which should have independent transplant surgeon, physician and intensivist so that all surgical and medical problems can be handled if one team gets quarantined or exposed. The teams can alternate for each patient. This issue carries three articles on various aspects of organ transplants covering kidneys, lungs, and the psychological impact of COVID-19 that would be useful reading to the transplant community in making decisions for themselves in these unusual times.

IN THIS ISSUE

Iran tops the charts in organ donation in Asia

Iran with an organ donation rate (ODR) of 14.34 per million population (pmp) in 2019 had the highest ODR in Asia as per the International Registry in Organ Donation and Transplantation (www.irodat.org). Israel's ODR was 10.8 pmp and South Korea's ODR was 8.68 pmp in 2019. Mehdi Shadnoush, Head of the Iranian Health Ministry's Centre for Transplantation and Disease Management said that the country ranked 21st in deceased donation in the world, while it ranked 14th in living donation. Approximately 8,000 people die of brain death annually in Iran, but out of the 4,000 who qualify to be organ donors, only 1,000 donate their organs. There are around 25,000 people on transplant waiting lists with 7 – 10 persons dying every day waiting for an organ in the country. When it comes to organ donor cards, 10 percent of Iranians (8.2 million) have them.

First double lung transplant performed in USA for patient who had COVID-19

A 28-year-old woman with severe lung damage from the coronavirus underwent a double lung transplant on 5th June 2020 at Northwestern Medicine in Chicago, USA. She had an autoimmune condition and was on immunosuppressant medication when she contracted COVID-19 in April. Her condition deteriorated rapidly. She was on lung and heart assistance devices for close to two months before the surgery. Dr. Ankit Bharat, chief of thoracic surgery and surgical director of Northwestern's lung transplant programme, who performed the transplant said that she would not have survived without a transplant and that it was one of the toughest transplants that he had done. He was of the opinion that organ transplantation might become more frequent for victims of the most severe forms of COVID-19. The disease caused by the new coronavirus most commonly attacks the respiratory system but also can inflict damage on kidneys, hearts, blood vessels and the neurological system. Fluid from the young woman's lungs was repeatedly tested to be certain she was negative for the coronavirus before operating. She spent just two days on the waiting list before an appropriate brain-dead lung donor was found and the transplant was done. Surgeons in Austria performed the world's first known lung transplant on 26th May 2020 to save the life of a COVID-19 survivor, a 45-year-old woman stricken with a severe form of the disease.

Hospital in Houston continues with lifesaving transplants during COVID-19 pandemic

Baylor St. Luke's Medical Center in Houston, USA performed heart, lung and liver transplants during the COVID-19 outbreak as these were deemed essential procedures. The transplants in some instances were at a rate higher than before the pandemic. Between mid-March and the end of May 2020, the hospital assessed 45 patients and performed transplants for 39 of them.

In comparison, for the same time period in 2019, over 85 patients were assessed and 70 transplants were performed. Multidisciplinary clinical teams developed and implemented a rigorous protocol. As a result, there was no transmission of SARS-CoV-2 and the hospital had a 100% patient survival rate. The protocol involved screening the potential patients for any signs and symptoms of COVID-19 along with a temperature check. When the patient was admitted to the hospital, a COVID-19 test as well as a CT scan of chest was done. All of those results needed to be negative in order to proceed with the transplant procedure. Potential donors also were tested for COVID-19, and further evaluated with a CT of the chest. Even in cases where the COVID-19 test was negative, if there was radiographic evidence of COVID-19 on the CT scan of the chest, that organ donation was rejected.

Reduction in transplants in France and USA during COVID-19 outbreak

Transplant centres in France and USA saw a huge reduction in deceased donor transplants because of the COVID-19 outbreak. By early April the number of transplants dropped by 91 percent in France and 50 percent in the USA compared to a month earlier. Experts from the Perelman School of Medicine at the University of Pennsylvania and Paris Transplant Group attributed it to a steep reduction in the number of kidney transplants as well as a drop in the number of heart, lung and liver transplants. A strong link between the surge of COVID-19 infections and this reduction was observed. In the USA, the number of recovered organs dropped from more than 110 a day on March 6 to fewer than 60 per day on April 5. During the same timeframe, the number of transplanted kidneys dropped from nearly 65 a day to about 35 per day. France may have experienced a larger drop in transplants because of a coordinated national effort to reduce clinical activity, whereas in the USA individual states had discretion to impose restrictions and hospital practice may have varied to a greater degree. One of the co-authors of this study that appeared in The Lancet said that international comparisons were important because transplant systems that developed best practices could then share them with other countries.

FORM – IV

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Deceased donation in Mumbai after COVID-19 lockdown

Mumbai has had two deceased donors since the lockdown due to COVID-19. The Zonal Transplant Coordination Centre (ZTCC), Mumbai said that the first deceased donation took place on 25th March 2020 after the nationwide lockdown was announced. The state of Maharashtra announced special transplant guidelines during COVID thereafter. The second deceased donor was a 61-year-old woman, Shaila Dhargawe from Ulhasnagar, who became brain dead after she met with an accident on 10th June 2020. Dr. S. K. Mathur, President, ZTCC, Mumbai said that since she had an organ donor card and had pledged to donate her organs her children were keen to fulfill their mother's wish. Her liver was retrieved at Fortis Hospital, Kalyan on 15th June 2020 and transplanted to a patient with end-stage liver disease. The other organs were not retrieved since there were no recipients.

Organ transplants restart amidst COVID-19 in Pune

Transplant teams across the country have restarted transplantation looking at the plight of patients waiting for the surgery to take place. In Sahyadri Hospital, Pune eight patients passed away in the first phase of COVID-19 lockdown in India while waiting for over two months for a transplant. Dr. Bipin B. Vibhute, Programme Director, Liver and Multi-organ transplantation at Sahyadri Hospital said his team carried out the first deceased donor liver transplant in the second week of May 2020. They successfully carried out the transplant surgery taking all necessary precautions and putting systems in place. The transplant team was smaller – just about six of them in place of over 10 including the transplant surgeons and the anaesthetist. Even the nurses chosen for the duty at the theatre were the ones who were not exposed to any COVID-19 patient before. Both the donor and recipient were tested for COVID-19 and a CT scan and X-ray of the chest were done.

There were three deceased donors and two deceased donors in May and June 2020 respectively in Pune. Mrs. Arati Gokhale, Central Coordinator, Zonal Transplant Coordination Centre (ZTCC), Pune said that they ensured the transplant option was offered to patients who were residing in and around Pune so that they did not have to travel far in these difficult circumstances.

Two-year-old child is Gujarat's youngest deceased organ donor

A 17-year-old male patient from Ahmedabad suffering from kidney failure received a new lease of life through the kidneys donated by the parents of a brain dead two-year-old child, Ved Zinzuwadia, in Rajkot, Gujarat. According to Dr. Vineet Mishra, Director, Institute of Kidney Diseases and Research Centre (IKDRC), Ahmedabad, this is the first time that the organs of a two-year-old child have been donated in the state. IKDRC, situated in the Ahmedabad Civil Hospital campus, was designated a semi-COVID facility in April and had not conducted any organ transplants since 24th March 2020 owing to the pandemic. The Gujarat government gave doctors permission to begin transplants again in mid-May. Dr. Pranjal Modi, transplant surgeon at IKDRC and the Convenor of Gujarat State Organ and Tissue Transplant Organisation (SOTTO), performed the surgery on 31st May. "We performed en bloc kidney transplant on the 17-year-old male patient with kidneys procured from the child who became brain dead due to spontaneous intracranial haemorrhage from a brain tumor. This was the first transplant by IKDRC following the lockdown." Dr. Divyesh Viroja, Head of the Department of Nephrology, at the B. T. Savani Hospital in Rajkot that retrieved the kidneys said, "Ved's parents are both pharmacists and are aware about the need for organ donation. So, when their child suffered from brain haemorrhage that left him brain dead, they agreed for organ donation. The child was brought here for organ removal and the recipient was brought from Ahmedabad by IKDRC. The recipient was discharged within five days and is doing well now."

Indian Council of Medical Research brings out guidelines on 'Do Not Attempt Resuscitation'

The Indian Council of Medical Research has brought out consensus guidelines that aim to guide treating physicians on 'Do Not Attempt Resuscitation' (DNAR). DNAR would apply to a patient with a progressive debilitating/incurable/terminal illness where cardiopulmonary resuscitation (CPR) would be inappropriate, non-beneficial and likely to prolong the suffering of the patient in the best judgement of the treating physician(s).

DNAR is about accepting death naturally and respecting the dignity and autonomy of the patient. The treating physician should discuss the prognosis and the benefits and harms of CPR with the patient/surrogate so that they can make an informed decision about DNAR.

While patients and their families are kept informed and cognizance is taken of their wishes regarding DNAR, the final decision rests with the treating physician to decide whether CPR is to be initiated or not since it is a form of treatment. DNAR will be dealt with on a case by case basis. The document emphasises that supportive and compassionate care will continue in the event of a DNAR.

(Reference - Indian J Med Res 151, April 2020, pp 303-310 DOI: 10.4103/ijmr.IJMR_395_20)

Anjali Uthup – 'Sunshine and Soul'

Founder, Sunny Kidney Foundation
Founding member,
Kidney Warriors Foundation

Anjali Uthup lives for those moments of joy that she brings into the lives of people with end-stage kidney disease and their families. For her now it is not the applause that comes with being a successful media professional that drives her, but the glance of the desperately ill that says, "I know I'm not alone in this, you are there…"

Her first brush with transplantation actually began with a campaign for organ donation in her daughter Ayesha's school in 2014 where the speaker was Dr. Philip G. Thomas, transplant surgeon in Kochi. In 2015, Dr. Thomas wrote a book called 'Transplant Story' about a patient who needed a liver transplant. Little did Anjali know that a day after she would finish reading it on 30th June 2015, her brother Sunny would be diagnosed with end-stage kidney disease as a result of IgA nephropathy. The news was shattering, and while she had some understanding of the transplant process, it was still a completely alien world. However, she had access to some of the best transplant surgeons in the country, Dr. Philip G. Thomas, and Dr. S. Sudhindran. Anjali describes Dr. Thomas as her mentor who set her on the path to helping patients with organ failure and gave her insights into the lives of these patients and their families. He continues to mentor her even though he now lives in the US.

Ms. Anjali Uthup with her brother Mr. Sunny Uthup

On her show India Diary, in an episode on the harrowing story of a young woman with end-stage kidney disease called 'Sejal Jobanaputra: The Warrior Princess,' Anjali poignantly says, "The life of a transplant and dialysis patient is always somewhere the space between darkness and light. And you have to wake up every morning and say, yes, it is going to be a brand new day and I'm going to make it good." Anjali says that her work in this space has 'usurped' her life in the best possible manner, even though it is heartbreaking many a time. Being witness to the inequities in not just access to health care, but even basic needs like water and toilet facilities for the patients she interacts with, has hit her hardest in Mumbai, the 'city of dreams.' She has seen patients sell medicines so that their families can survive another day, spoken to patients just hours before they died, and yet she has persevered.

Ms. Anjali Uthup with her mother Padma Shri Usha Uthup

Anjali's mother, Padma Shri Usha Uthup, a trailblazer in Indian pop music and father Mr. J. C. Uthup have given her the strength to fight this uphill and sometimes overwhelming battle. For Ayesha and Riyad, her children, the intense work that she does is a part of her persona, not an oddity.

They are extremely supportive and proud of her, as is Anjali's husband John. One day she could be in the slums of Dharavi in Mumbai and another day in a city in Kerala – in a home, a dialysis centre or hospital. The emotional succour that she offers to patients in different cities is in itself immeasurable, but chronic kidney disease is also extremely demanding financially and Anjali helps them in this as well – either through well-wishers or personally. As a Christian, she believes in 'tithe' and she says that giving away a part of one's earnings is something one just does.

Anjali writes eloquently in the book The Kidney Warriors that her grandmother's eye donation 26 years ago has always subliminally influenced her positive thoughts on organ donation. She feels that if people can give their body parts after their time, there is no better 'karma.' She also writes that it is important to not look upon end-stage organ disease as a punishment for one's sins. Sitting outside the dialysis room with other caregivers, she found that learning from and leaning on one another was the best way to cope with the illness.

Ms. Anjali Uthup with celebrities supporting the cause

Ms. Anjali Uthup with patients

While it has been arduous for patients to deal with dialysis and medications in the COVID-19 pandemic, Anjali says that in Kerala it has been streamlined with access to care being available to them. She emphasises that taking one's medication to prevent rejection is paramount and to never make any changes without the advice of one's doctor. She also strongly believes that prevention of end-stage organ disease can be accomplished only through healthy lifestyle education being imparted in schools from the very first day. Anjali is all sunshine and soul and will continue to spread cheer in the lives of transplant and dialysis patients through Sunny Kidney Foundation, and she is unstoppable.

- Dr. Sumana Navin

Lung Transplantation during COVID-19 Pandemic

Dr. Vaidehi Kaza

Vaidehi Kaza, M.D., is an Associate Professor in the Department of Internal Medicine, Division of Pulmonary and Critical Care Medicine, at UT Southwestern Medical Center, Dallas, USA. She specializes in lung transplantation and pulmonary critical care.

Donor and Recipient management during SARS-CoV-2 pandemic

While we are gearing our health care systems to manage COVID-19 and looking for therapeutic strategies, several challenges exist in the field of lung transplantation. Assessment of an organ donor in the midst of the SARS-CoV-2 pandemic, potential impact on procuring teams and subsequently on the recipient are prominent among them. Donor derived infections such as West Nile virus, community -acquired viral pathogens including influenza, para-influenza, adenovirus and respiratory syncytial virus are described[1]. During these unprecedented times, wait list mortality remains an important concern. Limited donor pool due to sequestration, less travel along with stretched resources for performing transplantation including restricted travel, availability of operating rooms, intensive care units and health care work force have put a strain on the solid organ transplant programs. Donor testing and excluding active infection with a single negative test if clinical phenotype is suspicious is insufficient since recent data is suggestive of subsequent tests being positive especially from lower respiratory tract[2]. New recommendations from transplant societies include donor and recipient testing prior to implantation. If transplantation is performed, strict isolation procedures and vigilance for COVID-19 in recipient is mandatory.

Organ from deceased donors that have epidemiological risk factors or have positive clinical criteria but test negative for SARS-CoV-2 should be used with caution due to possibilities of false negatives. Repeating or having two PCR tests is an option to confirm absence of COVID-19. Antibody testing (serology) is in rapid evolution. At this time, antibody testing should be used as an adjunctive testing and not as primary testing for determining the acceptability of the donor. According to the American Society of Transplantation, strong recommendation exists for not performing lung transplantation if testing is not available. The process of organ procurement, transportation and implantation involves several personnel and exposure to SARS-CoV-2 could be a potential "super-spreader" event predominantly infecting health care workers.

In summary, deceased donor and recipient selection during COVID-19 pandemic

- Recommend PCR testing for SARS-CoV-2 using oropharyngeal/nasopharyngeal swab, sputum/tracheal aspirate of bronchioalveolar lavage (BAL) less than 72 hours prior to organ donation; latter two are reported to have high viral loads with higher sensitivity. However, BAL should only be performed if it is safe to do so within a closed ventilatory circuit with adequate personal protective equipment available

- Recommend PCR based testing for recipient prior to lung transplant surgery

- Thoracic CT scan is recommended for donor screening as imaging may show signs of COVID-19 pneumonia prior to symptoms

- Current guidelines do not recommend change in induction or immunosuppression

Post-transplant Surveillance

Allograft injury is most common in lung transplant recipients compared to other solid organ transplant recipients[3]. Chronic Lung Allograft Dysfunction (CLAD) is the most common limitation for long term survival after lung transplantation[4]. Early detection with active surveillance is essential in lung transplant recipients. Our practice had dramatically changed with current health crisis where telemedicine has replaced in-person visits. Spirometry is based on home compliance with measurements rather than standardized pulmonary function testing in clinics. However, phone and video conferencing are helping to triage patients early, for suspected SARS-CoV-2 testing to necessary locations. But, active surveillance for acute or chronic lung allograft injury is limited to telehealth visits since March of this year. Routine surveillance bronchoscopy and biopsies are postponed since early March especially with recipients who are greater than 3 months since transplantation with no recent history of rejection and those that are not sensitized.

Key points summarized are

- Limiting clinic to essential patient visits and coordinating arrival to clinic and back to return to their own method of transportation without registration or waiting in clinic area is the current process. Regular screening procedures are mandatory

- Implementation of telemedicine/ WhatsApp technology for majority of patients and deferring routine surveillance for patients with stable lung function is now the current management strategy

Lung Transplant Recipients with COVID-19

It appears that there are two distinct features, one triggered by the virus itself and second, the host response. It is unclear if the infection risk is higher or the inflammatory response is milder due to immunosuppressed state. Structured approach to clinical phenotyping as mild, moderate and severe stages will help stratify therapeutic strategies. Two cases describing COVID-19 in lung transplant recipients are described. Aigner C et al[5] published as a mild case of COVID-19 in a 59-year-old female who recovered and was discharged on day 21. Another mild case reported[6] in a 53-year-old woman with chronic lung allograft dysfunction and multiple comorbidities also recovered with supportive care. Until recently lung transplant recipients were excluded from clinical trials with remdesevir or interleukin-6 monoclonal antibody Sarilumab. Alternatives in management include Tocilizumab and intravenous immunoglobulins (IVIG). Tocilizumab is described as treatment modality in desensitization and management of chronic antibody mediated rejection in kidney transplant recipients[7,8]. Immunoglobulins are formulations of human IgG that demonstrate anti-inflammatory effects beyond just the viral infection such as prevention of graft rejection and management of antibody mediated rejection.[9-11]

Recent emergence of donor specific antibodies in a pediatric heart transplant recipient is described (COVID-19 in a pediatric heart transplant recipient: Emergence of Donor Specific Antibodies; jhltonline.org).

Limited data exists regarding post viral allograft injury in lung transplant recipients. Another major limitation in treatment of these patients whether immunosuppressed or not is the management of critical illness myopathy after recovering from initial intensive care unit admissions. Prolonged viral shedding with nasopharyngeal swabs being positive for several weeks after initial infection limits the ability of discharge disposition to unprepared inpatient rehabilitation units.

Key points are

- COVID-19 can present in mild, moderate and severe forms
- Steroids and other agents to address the cytokine storm are being used in various clinical programs
- Post viral rejection is not uncommon
- Prolonged viral shedding can occur in immunosuppressed lung transplant recipients

In summary, we are now facing unprecedented issues with SARS-CoV-2 pandemic. Several limitations exist for donor evaluation, wait list management, organ transplantation and post lung transplant care.

Modifying current regimens to mitigate the risk for viral transmission, early recognition and treatment are broad solutions for programs involved in lung transplantation.

References:

1. Fishman JA. Infection in Organ Transplantation. Am J Transplant. 2017;17(4):856-879.

2. Wang W, Xu Y, Gao R, et al. Detection of SARS-CoV-2 in Different Types of Clinical Specimens. JAMA. 2020.

3. DerHovanessian A, Wallace WD, Lynch JP, 3rd, Belperio JA, Weigt SS. Chronic Lung Allograft Dysfunction: Evolving Concepts and Therapies. Semin Respir Crit Care Med. 2018;39(2):155-171.

4.DerHovanessian A, Todd JL, Zhang A, et al. Validation and Refinement of Chronic Lung Allograft Dysfunction Phenotypes in Bilateral and Single Lung Recipients. Ann Am Thorac Soc. 2016;13(5):627-635.

5.Aigner C, Dittmer U, Kamler M, Collaud S, Taube C. COVID-19 in a lung transplant recipient. J Heart Lung Transplant. 2020.

6.Kates OS, Fisher CE, Stankiewicz-Karita HC, et al. Earliest cases of coronavirus disease 2019 (COVID-19) identified in solid organ transplant recipients in the United States. Am J Transplant. 2020.

7.Choi J, Aubert O, Vo A, et al. Assessment of Tocilizumab (Anti-Interleukin-6 Receptor Monoclonal) as a Potential Treatment for Chronic Antibody-Mediated Rejection and Transplant Glomerulopathy in HLA-Sensitized Renal Allograft Recipients. Am J Transplant. 2017;17(9):2381-2389.

8.Vo AA, Choi J, Kim I, et al. A Phase I/II Trial of the Interleukin-6 Receptor-Specific Humanized Monoclonal (Tocilizumab) + Intravenous Immunoglobulin in Difficult to Desensitize Patients. Transplantation. 2015;99(11):2356-2363.

9.Hulbert AL, Pavlisko EN, Palmer SM. Current challenges and opportunities in the management of antibody-mediated rejection in lung transplantation. Curr Opin Organ Transplant. 2018;23(3):308-315.

10.van Gent R, Metselaar HJ, Kwekkeboom J. Immunomodulation by hyperimmunoglobulins after solid organ transplantation: Beyond prevention of viral infection. Transplant Rev (Orlando). 2017;31(2):78-86.

11.Cao W, Liu X, Bai T, et al. High-Dose Intravenous Immunoglobulin as a Therapeutic Option for Deteriorating Patients With Coronavirus Disease 2019. Open Forum Infect Dis. 2020;7(3):ofaa102.

In Memoriam

Mr. S. V. Venkatesan

(L-R)Ms. Aparna Venkatesan, Mrs. Malathi Venkatesan and Mr. S. V. Venkatesan along with their grandchildren

Dr. Sunil Shroff felicitating Mr. Venkatesan

Mr. S. V. Venkatesan, Advisor, MOHAN Foundation and Trustee, TANKER Foundation passed away peacefully on 24th March 2020 in Chennai. He was born in 1939 and joined the Essar Group as Group Financial Controller in 1986 after 24 years with the State Bank of India. At first, I knew him as the husband of our beloved trustee, Late Mrs. Malathi Venkatesan, always by her side. But as time went on, I realised that behind the quiet exterior was a man who spoke his mind, and was pragmatic and wise. His expert guidance propelled MOHAN Foundation in the right direction as it expanded its activities. We, at MOHAN Foundation, are privileged to have had his invaluable support for over two decades. Aparna, the Venkatesans' daughter said, "My father S. V. Venkatesan was a highly intelligent, humble and kind man exemplifying Vedic values. The Hindu scriptures say that to be born to wealthy parents is a rare birth taking many lifetimes, but to be born to spiritual parents is even rarer. I am one of those fortunate few."

-Dr. Sumana Navin

Restarting Transplant Programme in COVID era

Prof. (Dr.) Anant Kumar
Chairman, Department of Urology, Uro-oncology, Robotics & Renal Transplant, Max group of Hospitals, Delhi-NCR

The COVID-19 outbreak has been a double whammy for healthcare. The novel Coronavirus has been unique due to its highly variable clinical manifestation as well as highly unpredictable course. At one end, healthcare systems are collapsing due to sheer bulk of COVID patients; the other extreme is a glaring lacuna in care of non-COVID patients. The transplant programme was one of the worst casualties – fear of highly infectious disease in immunocompromised transplant patients as well as risk of infection in donors.

Prior to COVID, we were doing close to 20 – 25 renal transplants per month. With onset of lockdown and government advisory on elective procedures, transplant programmes were closed down across the country. At the same time, there were concerns regarding fate of chronic kidney disease (CKD) patients on maintenance haemodialysis (MHD), who were willing for transplant. Repeated visits to haemodialysis centre would also risk the immunocompromised CKD patient to COVID infection. Many transplant surgeons voiced their concerns regarding stopping of transplant programmes as knee jerk reactions.

A willing family of a brain-dead patient initiated the process of restarting the transplant programme in our centre. At the same time there was need for an urgent liver. We thought of retrieving both kidneys also. As head of the team, the first challenge was to motivate my team. Everybody was scared. I led from the front and discharged my clinical duties, in spite of being on the wrong side of age. The hospital management pitched in to provide PPE kits to all team members, and commitment to treat any team member, who inadvertently got infected, free of cost. All the healthcare workers were insured for Coronavirus infection. With free and frank discussion with my team members, I was successful in mitigating their fears and instilled confidence and motivation in them. Then, I had discussions with other stakeholders – Nephrologists, Anaesthesiologists, ICU teams - addressed their concerns and motivated them.

Next, I had to discuss multiple times with National Organ and Tissue Transplant Organization (NOTTO) and government authorities to convince them for going ahead with kidney transplantation. NOTTO agreed for liver transplantation but had reservations for kidney transplantation due to government advisory. The risk of infection to transplant recipients had to be weighed against risk of losing precious organs, a scarcity in our part of the country. Finally, NOTTO agreed with conditions – testing of both donor and recipients, screening of the whole transplant team, including doctors, co-ordinators, OT and ward nursing staff and front office/secretarial staff who would be coming in contact with the patients.

The final part was to convince the patients, explaining them the risk of MHD versus transplant in COVID times. Finally, five patients agreed to come for assessment. They all were called as per priority list and assessed regarding fitness for surgery. At the same time, NOTTO called up other stakeholder hospitals regarding availability of a cadaver kidney; however, no other transplant team agreed. With time ticking away, I decided to volunteer to take the second kidney also. NOTTO generously permitted for the same. Thankfully, the first two transplants were successful.

To take these further, green corridors were created in the hospital. Segregated areas were earmarked for transplant patients; with strict movement restriction of staff. Our nephrology team actively participated in convincing the waiting patients to go ahead for transplant. At the same time, seven international patients were waiting for kidney transplants. Their work-up was complete and authorisation committee clearance was already done. Due to lockdown and government advisory, we postponed their transplants. These patients kept on pleading for an early transplant. They could not go back to their country and they were losing money while waiting. They were ready to sign any consent and had understood the possibility of contracting COVID infection and its consequences. Unfortunately, over the last three months, many of my team members – senior consultants, DNB trainees, nursing staff and secretarial staff got infected with COVID-19 infection. However, the hospital honoured its commitment of providing free hospitalisation and treatment to one and all. Luckily, all of them recovered.

Since the lockdown from 24th March to 30th June 2020, we have done 19 renal transplants including two cadaveric transplants, two paediatric transplants (one with neurogenic bladder), two ABO incompatible, one pair of swap transplant and two Robot assisted transplants. Apart from screening both donors and recipients for COVID-19 by RT-PCR, no other change in routine protocol was made. All patients were explained the possibility of contracting COVID-19 infection and its consequences. All patients signed a detailed consent. During follow up, until absolutely necessary, recipients and donors were managed by telephonic/video consultations and home collection of samples. All 19 of our recipients are doing well, none of them has got COVID infection. Seven international patients did very well and went back home when their flights were available.

Prof. (Dr.) Anant Kumar with his team

Assessing the current situation of COVID-19 pandemic in India, this disease is not fading away anytime soon. We understand the need for treatment of COVID patients. At the same time, we must take care of our non-COVID patients, lest they suffer from lack of medical care. From our initial experience, we can strongly say that transplant programmes should be re-started after taking due precautions and care to prevent infection in patients and donors. Protocols can be made at local level with infection control committee of concerned hospital. The Indian Society of Organ Transplantation (ISOT) and NOTTO have also laid down new guidelines to start organ transplantation during this ongoing COVID-19 pandemic.

Psychological Impacts of Covid-19 and Staying Afloat in this Pandemic

Dr. Khusro Arastu, MD, Virginia, USA

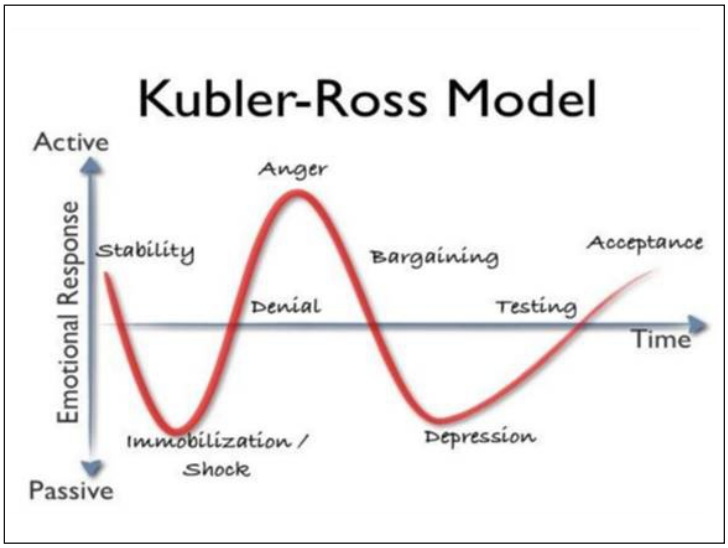
Introduction

This pandemic of COVID-19 and the unprecedented measures that are being taking to "flatten the curve" and stop this contagion have brought the whole world to a screeching halt. Apart from the medical crisis, and economic crashes, there is an enormous psychological impact of this particular pandemic.

Here I have made an attempt to categorize these psychological reactions and put these within the modified framework of Elizabeth Kubler-Ross's Stages of Grief. Also put together a guide to staying afloat during these strange and testing times. This living guide is adapted and modified from Abraham Maslow's pyramid of the 'Hierarchy of Needs.' Instead of self-actualization, here you take care of the basic to your higher needs, while keeping your health and sanity. Some other concepts used here are based on George Valliant's An Adaptation to life for the 'Psychological Mechanisms of Defense' and Aaron Beck's concept of cognitive distortions from his cognitive-behavioral theory.

Psychological Impacts within an Adapted Framework of Kubler-Ross' model

- Denial
- Anger
- Bargaining
- Anxiety
- Depression
- Acceptance



Denial & Displacement

- Denial of the painful reality, as it is too disturbing or distant
- Taking a nonchalant or cavalier attitude and putting oneself at risk
- Displacement as a psychological defense:
  - like blaming an agency,
  - an industry or a foreign government
- Paranoid projection (as a psychological defense) like this outbreak is not real, latching on to conspiracy theories and propagating them

Anger & Frustration

- Anger over the situation (Pandemic): Why me? why now?
- Increased frustration can lead to misplaced anger
- Anger can be displaced and directed towards:
  i. Certain groups of people e.g. Chinese people
  ii. Government workers or officials
  iii. Health care workers etc
  iv. Sick people
  v. Loved ones

Bargaining

- Procrastination, buying time to avoid distress or discomfort
- People are willing to do anything in an effort to stay safe/avoid the virus, and this can often lead to over-kill
- Hoarding behaviors - stockpiling, "staying prepared" - the 'toilet paper crisis' in the US
- Over-preparing: "Better safe than sorry"
- Stock-market crash

Anxiety & Panic

- Generalized anxiety due to fear of the unknown, existential threat, and worry about income, supplies, loved ones, etc
- Panic attacks in closed spaces, crowed places, public transport, etc
- Worrywarts & worryguts: tend to worry unduly, personalization, generalization and catastrophization (cognitive distortions - Aaron Beck)
- OCD – increased anxiety, leads to increased obsessive thinking, this leads to increased compulsive activity like cleaning rituals, phobic dread from germs, etc
- Schizophrenia – increased paranoia and psychosis
- Mass hysteria
- Anxiety also stems from the indefinite suspension of many regular activities like attending schools or going to work. The unpredictability of the situation can exacerbate anxiety

Role of Media & Social Media

- Media tends to sensationalize. They want viewers to latch on to their shows
- Social-media can create fear, panic, and rumors
- Bogus remedies, personal opinions, to marketing gimmicks are being circulated
- Better to stay informed but avoid overload
- Light humor, but not at the expense of those suffering, can be helpful
- Scams, generation of mistrust, being taken advantage of

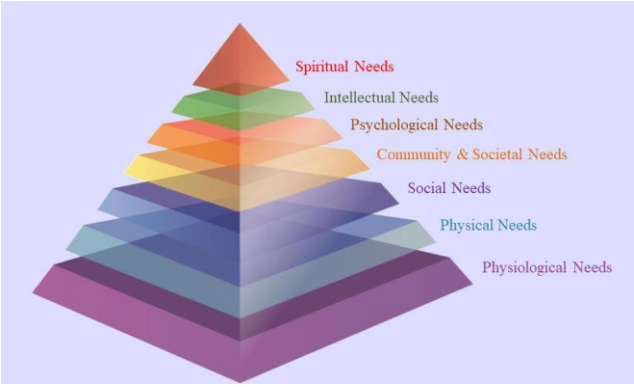
Depression
- Wide affective range: from feeling gloomy and lack of motivation to full-fledged depression
- Underlying psychological and medical factors play a role
- Coping skills of individual people play a role
- Cabin-fever: feeling closed-in, unable to go out, and isolation
- Frustration from loss of wages and time
- Cancellation and postponements of social activities (graduations, weddings, etc.), vacations, recreational activities, gyms, etc

Acceptance
- Most people accept the reality and gravity of the situation, and take the necessary precautions
- They tend to minimize the psychological impacts by healthy defense mechanisms and positivity
- Some have to navigate through the other stages to get to this stage

Some Special Considerations
- The impact on the collective psyche of smaller communities, which are hit the hardest due to high morbidity and significant loss of life
- Increase in domestic violence: social distancing creates an opportunity for the perpetrators

Psychological HELP
- Some need professional help, which may include:
  i) redirection and insight
  ii) counseling
  iii) medications if necessary
- If you see someone struggling, try to help them

Dealing with the Pandemic: Adapted from Maslow's pyramid of 'The Hierarchy of Needs'
- Physiological Needs
- Physical Needs
- Social Needs
- Community Needs
- Psychological Needs
- Intellectual Needs
- Spiritual Needs



Physiological Needs
- Good Nutrition, Eat healthy: fresh vegetables, vitamin C, etc
- Hydration: Stay well hydrated
- Rest: Sleep well and enough, avoid caffeine after 4:00 PM if you sleep at 10:00 PM
- Go out and get fresh air everyday, aerate your living areas
- Try to get at least 20 minutes of sunshine (vitamin D), sit out or take a walk

Physical Needs
- Safety
- Hygiene
- Appropriate clothing, masks, personal protective equipment if necessary
- Supplies - anticipate, stay ahead
- Physical activity & exercise

Social Needs
- Social distancing and/or quarantine
- Keep virtual social connection through phone, skype, social media etc
- "Talk to them rather than worry about them"
- Have some family time, play board games, watch a movie together etc
- Social media has gone on steroids! Avoid information overload. Stay informed. Learn to Ignore

Community & Societal Needs
- Help, give donations/charity, volunteering, help in any way you can
- But also exercising the "virtue of selfishness." Keep yourself safe and healthy
- Can't help others if you are sick or become a source of infection

Psychological Needs
- Positive thinking
- Stay informed
- Exude kindness, compassion, love, affection
- Avoid negativity, cynicism, sarcasm, etc
- Healthy mind and positive emotions help your immune defense

Aesthetics (for extra credit!!)
- Keeps living areas bright
- Put fresh flowers if you can (if you don't have allergies or asthma)
- Keep living areas neat and uncluttered to reduce "visual chaos"
- Incense or candles for aromatherapy
- Light music in the background

Spiritual & Intellectual Needs
- Reading, personal research, creativity to fill time
- Meditation, yoga, etc. is helpful for some
- Faith and supplication help many people as well. Any belief system can serve as a source of hope and empowerment

References:

- *Elizabeth Kubler-Ross: Stages of Grief*
- *Abraham Maslow: A theory of Human Motivation, the pyramid of Hierarchy of Needs*
- *Aaron Beck: Anxiety Disorders and Phobias – A cognitive approach*
- *George Valiant: An Adaptation to Life - Psychological Mechanisms of Defense*
- *Steven Taylor: The Psychology of Pandemics*
- *Davis & Lohm: Pandemics, Public and Narratives*
- *Damir Huremovic: Psychiatry of Pandemics: A Mental health response to infection outbreaks*

Acknowledgements:
- *Mona Suleman, PhD*
- *Shehla Arastu, PhD*
- *Kamran & Arshia Arastu*

My Transplant Experience by Mr. V. Krishnan

Mr. V. Krishnan,
Kidney transplant recipient

It has been 23 years since I underwent a kidney transplant on 25th March 1997. I am now a 69-year-old senior citizen residing in Bangalore with my wife with both my sons settled abroad. I am still keeping myself busy with some consultancy work for two organisations in Chennai. I consider myself to be moderately fit and able to carry out all my chores. But behind all this outwardly smooth journey and a comfortable quality of life, I wish to share my mid-life health crisis which threatened to shake and even uproot me and family.

I was a part of a joint family when I was growing up – two brothers, four sisters, grandmother, parents and I; we totalled 10 members in a small 450 sq. ft flat in Mumbai. I studied in the best of schools and started working in Mumbai. Things were going fine and I was able to put in hard work backed by good health. But by the age of 31, I started getting heaviness in the head and a lurking headache which became a source of botheration. I was diagnosed as having hypertension. My blood pressure used to go out of control often. I consulted different physicians. Since kidney diseases were very rare those days (early 1980s), only one of the doctors whom I consulted suggested even testing the kidney function, but the lab which tested gave an erroneous reading stating that all was well.

I carried on with my bodily discomfort for nearly 14 years before I chanced to meet a Railway doctor recommended by my brother-in-law in Mumbai. Just as I was about to leave his consultation room, he enquired whether I had done a kidney function test. I said 'No'. He suggested checking the kidney function at Hinduja Hospital without any delay whatsoever. I was found to have a creatinine of 5 mg/dL (the normal range being 0.8 – 1.2 mg/dL).

The Hinduja Hospital nephrologist said that my kidneys had failed and I'd better start looking for a donor. This was the first time I was hearing about kidney failure. The whole world came crashing down. The taxi ride from Hinduja Hospital in Mahim to my residence in Sion in Mumbai was one of the most depressing rides of my life. So many negative thoughts passed through my mind. Most of it veered around my wife standing helpless with my two sons with a sick and dying patient in bed. Also how was I to frame my sentences at home to lessen the impact of the blow to my family members. The nephrologist at Hinduja Hospital had also told me that one can delay the day of reckoning (commencement of dialysis) by a few months, maybe a year by switching over to a protein free diet.

Meanwhile the search for a donor could begin. Every member of the family was praying that the rise in creatinine could be arrested. The talk of a donor had not even arisen till this moment! But where to start off the dialysis and do the transplant was a regular point of debate at home. Apollo Hospitals, Chennai was recommended by many because of Dr. M.K. Mani and his team. Eventually the creatinine did shoot up compelling me to make a dash to Apollo Hospitals, Chennai which gave me some more time to start off on dialysis.

My elder brother, a bachelor came with me to offer his kidney, but could not pass the tests because of his poor platelet count. He was terribly disappointed. I was losing hope and dialysis was becoming inevitable. No donor was on the radar. Deceased donation had not yet taken off then. Meanwhile I was coming to the conclusion that divine intervention could be a solution. I visited many temples in the South and did all types of 'poojas' and even visited a Swamiji for a herbal remedy. When you are in distress you tend to believe weird things. I watched helplessly as the creatinine crossed 10 mg/dL.

Finally, I got admitted on 1st March 1997 in Apollo Hospitals, Chennai for dialysis. The first day was really tough. I collapsed at the reception lobby after the dialysis. My sister, Mrs. Saroja Viswanathan and my wife Visalakshi were there with me fortunately. My sister left after a week for Mumbai. With the dialysis on and no donor in sight, mentally I was going through the worst part of my life. However, like a bolt from the blue, my sister called me up one fine morning to say that she was coming back to Chennai to offer her kidney and do the matching tests. Although this was one of the happiest moments in our life, my wife and I wanted to double check whether she was fully aware of the risks involved in the donation of one kidney and life thereafter with one kidney. We also spoke to our brother-in-law and my sister's son in USA. Both said they were fine with the donation. I always wondered who belled the cat since there was no sign of my sister donating when she was with me during the initial stages of dialysis. I guess my wife did have a role which I came to know long after the transplant. I still think this was perhaps the most difficult part of the process. As of date I do not know what transpired between the two of them nor have I gathered enough courage to ask them.

Mrs. Saroja Viswanathan,
sister and living kidney donor

My sister came for all the matching tests and things fell into place in quick succession. Both of us were admitted on the same day and the transplant took place. She was 54 years and I was 47 years at the time. So, I was reborn on 25th March 1997. My post-transplant care was handled by my wife. Thanks to her even my closest friends and relatives could see me only from a safe distance. Medicines were given without fail at the stipulated time. I have had cataract and a few other health issues over the years, but barring that I have always had a good quality of life. My sister who is now 77 is also doing fine. I wish to thank my sister for the Gift of Life and my wife for her untiring post-transplant care which continues with the same intensity and vigour even today. Of course, the large family into which I was born was a great blessing. Apart from the tremendous moral support in the mid-life crisis I am privileged that two of my siblings came forward to offer a kidney voluntarily. This is almost becoming impossible in a nuclear family of present times. Finally, I owe my second innings to the excellent healthcare system in the country which has some of the finest doctors in the world backed by skilled technicians and caring nurses. I could work with renewed vigour and move up the corporate ladder. I got in touch with MOHAN Foundation in 2008 and even participated in their Transplant Coordinators' Training Programme in 2009. I have given several awareness talks in corporates and educational institutions in Bangalore. My advice to patients is 'NEVER LOSE HOPE'.

A MISSION TO REACH MILLIONS - CONCERTS IN AID OF ORGAN DONATION

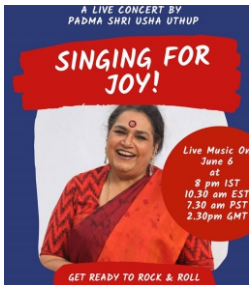
MOHAN Foundation launched an initiative called "A mission to reach millions – Concerts in aid of organ donation" in May 2020. This is a series of online concerts to spread awareness about the noble cause of organ donation and celebrate the spirit of giving.

Singing for Hope

Ms. S.Aishwarya and Ms. S.Saundarya, great-granddaughters of Bharat Ratna M.S. Subbulakshmi and granddaughters of Dr. Radha Viswanathan presented the first in the series – 'Singing for Hope,' a Carnatic music concert (Facebook Live) on 16th May 2020. They generously agreed to endorse MOHAN Foundation's lifesaving work in promoting deceased organ donation.

Ms. S. Aishwarya & Ms. S. Saundarya singing for MOHAN Foundation

Singing for Joy



The second live concert 'Singing for Joy' by Padma Shri Usha Uthup was held on 6th June 2020.

The concert in true 'Usha' style was ebullient and resonated with the cause of organ donation as every donation brings joy into the lives of those awaiting lifesaving transplants and their families.

Padma Shri Usha Uthup singing for MOHAN Foundation

Synchrony Dialogues - Coming Together for Organ Donation

Mrs. Lalitha Raghuram, Ms. Shreya Siddanagowder, Dr. Sholay Meitei, Mr. Nixon Joseph, Dr. Ravi Mohanka during the panel discussion

On 12th June 2020, MOHAN Foundation organised the first of its series of panel discussions called 'Synchrony Dialogues.' These discussions are open to the general public. The first such discussion titled, "Coming together for Organ Donation" was in association with SBI Foundation.The panel discussion was moderated by Mrs. Lalitha Raghuram, Country Director, MOHAN Foundation. The panelists were - Mr. Nixon Joseph, President and COO- SBI Foundation, Dr. Ravi Mohanka, Chief Surgeon & HOD- Liver Transplant & HB Surgery at Global Hospitals, Mumbai, Dr. Sholay Meitei Kangjam, Urologist, Jawahar Lal Nehru Institute of Medical Sciences, Imphal, Manipur and Ms. Shreya Siddanagowder, Asia's first upper arm double hand transplant recipient. Shreya highlighted the key role that her family, doctors and physiotherapists played during the recovery process. She said she was determined to finish her education and live life to the fullest.

Synchrony Dialogues - How to take care of your Liver

On 30th June 2020 MOHAN Foundation organised its second panel discussion as part of its series, 'Synchrony Dialogues' on 'How to take care of your liver' in association with Medanta - The Medicity. It was moderated by Ms. Pallavi Kumar, Executive Director, Delhi-NCR, MOHAN Foundation. The expert faculty for the panel discussion was Dr. Arvinder Singh Soin, Chairman Institute of Liver Transplantation and Regenerative Medicine and Dr. Sanjiv Saigal, Senior Director, Hepatology & Liver Transplant, both from Medanta - The Medicity, Delhi. Dr. Soin shared his experience of a liver transplant that he performed on a child who was 17 months old at the time of the operation. The donor was the child's father. The recipient is 24 years old now and wants to become a surgeon!

Dr. Arvinder Singh Soin (left), Ms. Pallavi Kumar and Dr. Sanjiv Saigal (bottom) during the panel discussion

In the management of HYPERTENSION

Dilnip

Cilnidipine 5/10/20 mg

Effective and Protective

KIDNEY Guardian

Protect. Pledge!

Protect

Educate patients with hypertension/ diabetes on **kidney protection**

Pledge

To spread awareness on **kidney donation** after life

Abridged Prescribing Information:

Indication : For the treatment of mild to moderate hypertension. **Dosage and Administration** : The recommended adult oral dosage of Cilnidipine is 5-10 mg once daily. The dosage can be increased up to 20 mg, if needed. **Adverse Reactions** : Dizziness, Flushing, Headache, Hypotension, peripheral edema, Tachycardia, Palpitations, GI disturbances & increased micturition frequency. **Warnings and Precautions** : Hypotension, poor cardiac reserve, heart failure. Sudden withdrawal may exacerbate angina. Discontinue in patients who experience ischemic pain following administration. Pregnancy, lactation. **Contraindications** : Cilnidipine is contraindicated in patients with known hypersensitivity (e.g., anaphylaxis or angioedema) to Cilnidipine or any other component of this product.

Additional Information is available on request

Information updated on January 06, 2020.

For the use only of a Registered Medical Practitioner or a Hospital or a Laboratory.

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