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ORGAN DONATIONS PROGRAM IN TAMIL NADU



Inauguration of National Conference on Organ Donation & Transplantation was held on 30th and 31st July 2022 at PSG Hospitals. Honorable Ministers Thiru. Maa. Subramaniam - Minister of Health, Medical Education & Family Welfare and Thiru. V. Senthil Balaji - Minister of Electricity, Prohibition and Excise inaugurated and addressed the public.

PATRONS

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The Government has a special focus on this program to improve the number of organ donations and transplantations. The Cadaver Transplant Program was intiated by the then Chief Minister, Kalainzger Thiru.M.Karunanithi, setting an example to the rest of the country in the deceased donor organ transplant program. The program was under the direct chairmanship of the Chief Minister to give the highest priority to the cause.





ORGAN DONATIONS PROGRAM

The program has evolved to a greater extent to transform as TRANSTAN (Transplant Authority of Tamil Nadu) to achieve the best state in the country with highest number of donations for 6 continuous years. In continuation of the same, the Government has urged all the Government Medical Colleges & Hospitals to obtain organ transplant licences. To start with, the government has asked all the Government centres to focus on brain death identifications and certify the same to generate a greater number of organ donations in the state.

The impact of COVID – 19 with the factors like lockdown, slowed down the number of donations and transplantations. The focus of the healthcare system was more on the covid treatment and management. However, these days the number of organ donations are picking up and expect that the state would comeback to the number one position with highest number of organ donations. In spite of the COVID pandemic, there were 161 organ donors in the state and have also performed 745 major organ transplantation including Heart, Lungs, Liver, pancreas and kidneys.

The challenge is to convert a potential brain-dead patient into an organ donor, and to maintain the patient until organ harvesting. There is lack of uniform standard operating procedures to be followed and it's the need of the hour to formulate one such SOPs. The first 24 -48 hours after brain death identification is crucial for the successful organ donation program. The role of grief counsellors and transplant coordinators is pivotal in counselling the family for organ donation.

The Government strongly believes on the public-private partnership in the deceased organ donation program. The TRANSTAN has planned many awareness programs and workshops on the organ donations at district headquarters and at state level among the stakeholders involved in organ donation and transplantation. We encourage the private hospitals to join hands with government to increase the number of donations in the state.



The Transplant Coordinators are the backbone of this program and their contributions are immense in building it stronger. Continuous meetings and workshops like this by the transplant coordinators would help both the existing and the new coordinators to understand better on the process flow of the organ donations and transplantation.

• 105,845 Number of men, women and children on the national transplant waiting list. • 17 people die each day waiting for an organ transplant. • Every donor can save 8 lives and enhance over 75 more. You can help. • 40,000+ transplants were performed in 2021. • Every 9 minutes another person is added to the transplant waiting list.

"A Healthy life outside starts from the inside!







Liver



Lunas



Heart









BEING VIGILANT ABOUT HEPATITIS CAN SAVE MANY LIVES

Professor Dr. A. Jayasudha, Principal, PSG College of Nursing

Hepatitis is an inflammation of the liver parenchyma that is caused by a variety of infectious viruses, and noninfectious agents leading to a range of health problems, some of which can be fatal.

Viral hepatitis is a major global health threat with an estimated 296 million people living with chronic hepatitis B and 58 million people living with chronic hepatitis C in 2019. Approximately 10,00,000 people die each year from causes related to viral hepatitis, most commonly liver disease, including liver cancer. Chronic viral hepatitis infections are 30 times more frequent than HIV in Asia. This calls for an urgent attention by the health care system.

World Hepatitis Day is observed every year on July 28th. The theme of this year is to highlight the need for "Bringing hepatitis care closer to the primary health facilities and communities" so that people have better access to treatment and care, no matter what type of hepatitis they may have.

WHO aims to achieve hepatitis elimination by 2030. To achieve this target WHO has set the following targets:

- Reduce new infections of hepatitis B and C by 90%;
- Reduce hepatitis related deaths from liver cirrhosis and cancer by 65%;
- Ensure that at least 90% of people with hepatitis B and C virus are diagnosed; and
- At least 80% of those eligible receive appropriate treatment.

Name of Virus	Hepatitis A Virus (HAV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)	Hepatitis D Virus (HDV)	Hepatitis E Virus (HEV)
Classification	Picorna Virus	Hepa DNA Virus	Flavi Virus	Delta Virus	Hepe Virus
Viral Genomess	RNA	dsRNA	ssRNA-	ssRNA (-ve)	ssRNA
Transmission	Enteric	Parenteral	Parenteral	Parenteral	Enteric
Incubation Period	15-45 days	45-160 days	15-150 days	30-60 days	15-60 days

CATEGORY

MANAGEMENT

Love your liver with all of your sole!

- Bed rest, refraining from alcohol, and taking medication to relieve symptoms
- Most people who have hepatitis A and E get well on their own after a few weeks.
- Hepatitis B is treated with Antiviral Drugs, such as Entecavir, Tenofovir, Lamivudine, Adefovir and Telbivudine.
- Hepatitis C is treated with peginterferon.

Liver transplantation is the surgical replacement of a diseased liver by all or part of a donated liver. Cirrhosis due to hepatitis C (HCV) has been a leading indication for liver transplant







ACUTE RHEUMATIC FEVER (ARF)

By Dr. Vinoth Doraiswamy. Consultant Paediatric Cardiology

Introduction:

The global burden of acute rheumatic fever (ARF) and rheumatic heart disease (RHD) is significant and predominantly found in populations living in low resource settings. There are challenges in obtaining the global burden of disease, especially in low and middleincome settings, due to delay and difficulty in diagnosis and poor documentation in these regions. A recent estimate of Ministry of Health and Family Welfare of India shows the burden of RHD to be 0.9 cases / 1000 children in 5 to 14 -year age group, approximately 2.18 lakh cases. ARF, if not promptly diagnosed and treated, leads to RHD which has significant long-term morbidity and mortality. Hence it becomes important to create awareness about this disease among health care practitioners and the general public.

Case report:

10 year-old child, previously well, came with complaints of 2 month history of intermittent fever and migratory polyarthralgia (joint pains) of major joints of arms and legs. There was also a recent history of difficulty in breathing on walking few meters. He consulted local doctors but obtained only transient relief from medications. There was no history of rash or sore throat.

On examination, there was tachycardia with tachypnoea. Cardiovascular examination revealed hyperdynamic down and out apex with systolic thrill. On Auscultation, first heart sound was normal, wide variable split of second heart sound, low pitched audible third heart sound and grade 3/6, high-pitched, soft blowing pan systolic murmur at apex, radiating to axilla. Complete blood count showed elevated white blood cells with neutrophilic predominance, raised inflammatory markers (ESR and CRP) and high ASO (anti – streptolysin antibody) titers. ECG showed sinus tachycardia with left ventricular hypertrophy. Chest X-ray showed cardiomegaly with features of pulmonary venous hypertension (Fig 1). 2D transthoracic echocardiography showed severe mitral valve regurgitation (leak), moderate aortic valve regurgitation, dilated left sided chambers and good biventricular function (Fig 2a,b). A diagnosis of acute rheumatic fever with severe carditis was made. He was started on injection benzathine penicillin, steroids and diuretics. After 2 weeks, his steroids were tapered, aspirin was added and continued for 3 months. At 3 month review, his heart failure had improved, echo showed improvement, mild mitral valve regurgitation with disappearance of aortic valve regurgitation. He was advised penicillin prophylaxis according to standard protocol to prevent further episodes of ARF.





ACUTE RHEUMATIC FEVER (ARF)

Discussion:

Acute rheumatic fever results from the body's autoimmune response to a throat infection caused by Streptococcus pyogenes. It develops approximately 2 – 6 weeks after throat infection in children of 5 - 15 year age group. The heart, joints, skin and brain are the common organs affected. There is no single confirmatory test for ARF. The diagnosis of ARF depends on patients fulfilling a set of clinical criteria, the Jones Criteria. This includes major criteria – carditis, arthritis, chorea, subcutaneous nodules and erythema marginatum. Minor criteria include fever, arthralgia, prolonged PR interval and elevated inflammatory markers. To diagnose ARF, 2 major or 1 major and 2 minor criteria are needed along with supporting evidence of recent streptococcal infection like high ASO titers or throat cultures. This criteria underwent its most recent revision in 2015, published by American Heart Association, where its applicability was expanded to include both high risk and low risk populations with certain differences in the major and minor criteria. A major step forward was the inclusion of sub-clinical carditis as a major criteria. Subclinical carditis is present when there is no auscultatory evidence but echocardiographic evidence of carditis. This is in-tune with recent times with echocardiography being more readily available and the deterioration of auscultatory skills among health care practitioners. Every year, the first week of August is observed as rheumatic fever and rheumatic heart disease awareness week. Let us all pledge to be more aware of this disease. Early pick up and treatment of ARF and subsequent prophylaxis with penicillin will prevent the occurrence of long term permanent heart damage - rheumatic heart disease. It is our duty to ensure a healthy heart for the citizens of tomorrow.

Legends:

Fig 1: X-ray chest in PA view shows cardiomegaly, straightening of left heart border and mild pulmonary venous hypertension (solid black arrows).



Fig 2a,b: 2D – transthoracic echocardiography in apical 4 chamber view and colour doppler shows dilated left atrium and left ventricle. There is severe mitral regurgitation with posteriorly directed jet (solid white arrow). LA – left atrium, LV – left ventricle.









ROBOTIC SURGERY (Pediatric)

By Dr. Pavai Arunachalam, Senior Consultant, Paediatric Surgery.

The department of pediatric surgery has been in the forefront in the Indian scenario in performing advanced reconstructive procedures.

The installation of Da Vinci robot was a technical boon for our department.

The 3 D vision, precision, magnification and comfort for the surgeon and decreased pain for the patient makes robotic surgery very ideal for use in children. Robotic instruments are specifically designed to mimic human wrist movements, allow 7 degrees of freedom of movement, and can be particularly advantageous for newborns, infants, and young children, as well as, certain hard-to-reach anatomical areas. By operating seated at the console, surgical fatigue and tremors are reduced. The decreased post operative pain and early path to recovery has been noted for children operated by robotic surgery. Pediatric robotic surgery is advantageous in the thorax, pelvic surgery, and reconstructive surgery. At present in PSG, a variety of cases have been operated in this short period of one month

Thorax

Three years old boy – admitted with recurrent respiratory tract infection.

X-ray chest – shows the diaphragm to be at the 5th (Fig. 1) intercostal space and thoracoscopic plication was done. Per op picture – showing floppy thin diaphragm and (Fig. 3) then taut after plication. (Fig. 4) His post operative x-ray shows (Fig. 2) the left diaphragm at the eight intercostal space and he was discharged in four days and has come back for the first follow up and is doing well.



Per op picture – showing floppy thin diaphragm and then taut after plication

Genito - urinary tract

Per op picture – PUJO with the ureter and after (Fig. 2) pyeloplasty Three patients have undergone robotic pyeloplasty and the youngest has been 7 months weighing 7 kg. The post operative ultrasound shows (Fig. 3) good decompression. The magnification and ease of suturing gave a real advantage over open and laparoscopic surgery





Per op picture – PUJO with the ureter and after pyeloplasty



Post op ultrasound – showing good decompression





ROBOTIC SURGERY (Pediatric)

By Dr. Pavai Arunachalam, Senior Consultant, Paediatric Surgery.

Anorectal Anomaly

Another three years old boy presented with absent anus and a fistula into the urethra. Pull through surgery with division of fistula was done and he was discharged in five days and will undergo colostomy closure in 1 month.





Per op picture - rectum blind ending and division of fistula



Bowel pull through done

Multi Cystic Kidney

A non functioning multi cystic dysplastic kidney was removed in 12 kg, 3 years old boy and discharged on the third day





Ultrasound showing multicystic dysplastic kidney and per op picture of the multiple cysts in the kidney warranting nephrectomy

The small experience gained in this one month period has been that robotic surgery with all its advantages can be used in children safely. The age group has been from seven months onwards and the lowest weight has been 7 kg and a variety of operations can be performed. The real advantage is that children are not left with big scars especially in the thorax causing kyphoscoliosis as they grow up.

In addition, robotic surgery minimizes operative trauma, scarring, post op pain and lesser bleeding and hence transfusion requirements are less with shorter hospitalization and return to home and this is well appreciated by the surgeon, anesthetist, patients and the parents. The cost has been a deterring factor but PSG offers attractive packages so that this technical advancement can be used to give better care for these little patients.



ROBOTIC CANCER SURGERY – New Paradigm in Cancer Treatment

Dr K.S. Rajkumar, Professor of Surgical Oncology, PSG IMSR, Coimbatore

Robotic surgery is the latest advancement in minimally invasive surgery that has revolutionized cancer surgery in the last decade. The reasons for this upsurge in robotic surgeries are multifold in terms of benefits to patient care, training for surgeons, and cancer research. A number of publications supporting the role of robotic surgery in patients with cancer have been published.

Surgery for cancer is different from surgery for other diseases. It involves "radical surgery" which involves removal of all organs or tissues involved with cancer along with the surrounding fibrofatty tissue and lymph nodes while preserving as much function as possible. This is called oncological safety. Robotic surgeryis another dimension of precision medicine as it has enabled surgeons to perform margin-negative cancer resections with better perfection and functional outcomes.

Benefits to patients with cancer

- Precision Surgery and better chance of organ preservation
 - Minimal access surgery and Robotic surgery in particular offers precise surgery which has increased the chances of organ preservation without compromising oncological safety.
- Better functional outcomes
 - The accuracy offered by the robotic surgery system helps the surgeon preserve the delicate nerves and tissues resulting in excellent functional outcomes like bowel/bladder continence and sexual outcomes.
- Shorter hospitalization
 - Multiple studies have proven the value of robotic surgery in fastening the postoperative recovery and shortening the hospital stay in cancer patients.
- Faster recovery time and return to normal activities and adjuvant treatment
 - Majority of cancer patients in India present with advanced tumors and require multimodality treatment including surgery, radiotherapy, and chemotherapy. Almost 60-70% of the patients that we see in our oncology clinics have advanced tumors.
 - Any delay in starting the adjuvant treatment due to prolonged postoperative recovery can adversely affect the oncological outcomes in terms of disease recurrence and survival.
- Smaller incisions, resulting in reduced risk of infection
- Reduced blood loss and transfusions
- Minimal scarring

- Less postoperative pain
- Surgery of cancers in difficult access areas
 - Many tumors present in difficult access areas like pelvis, chest, and pharynx were considered difficult to be treated with surgery. Because of the greater maneuverability and precision provided by the robotic system, these tumors have become amenable to surgical treatment.
 - One example where Robotic surgery has brought a paradigmchange in treatment is oropharyngeal cancers which were conventionally treated with radiation therapy resulting in long-term complications. Robotic surgery provides an opportunity to perform surgical resection without the need for radiation therapy in early tumors.

Benefits to Surgeons and trainees

- Robotic surgery allows surgeons to perform complex surgical tasks with great accuracy because of excellent visualization – three-dimensional magnified view, enhanced dexterity- endowrist movements, and advanced technologies like Infrared vision and Firefly techniques.
- The robotic surgery system has a simulator which allows surgeons and trainees to get trained on simulated models before being certified to operate on patients.
- The robotic surgery system allows for training and mentoring of multiple surgeons and trainees at the same time reducing training constraints. The training and certification pathways are rigorous to ensure patient safety.

Benefits to Cancer Research

- Robotic surgery has ushered a new era of telesurgery which at present is in its nascent stage but has a huge scope to change the way we practice surgery especially in remotely located places.
- Precision medicine is an evolving concept in oncology. Abiding by the principle of 'one shoe does not fit all', research is being conducted globallyontailor-made treatments for patients with cancer. Infrared vision and Firefly techniques added in the new robotic surgery systems have opened new avenues for cancer research.
- Many research studies on improving the cancer outcomes using robotic surgery are currently underway across the globe.

PSG Hospitals has acquired the latest 4th Generation da Vinci Robotic Surgery System which allows us to provide the latest technology in cancer surgery at affordable costs.





15 PATIENTS GET BENEFITTED BY PSG'S ADVANCED & AFFORDABLE ROBOTIC SURGERY IN 2 WEEKS



In the last 2 weeks, 15 patients (including two kids), with different health issues were treated using advanced robotic surgical system by experts at PSG Hospitals, Coimbatore, paving way to to better outcomes and quick discharge, Dr.J.S.Bhuvaneswaran, Director, PSG Super Speciality said on Tuesday here.

Using the state of the art robotic Surgical system called 'Da Vinci' (a Rs. 12 -13 crore equipment) the minimally invasive robotic procedures for gastro, cancer and paediatric issues of the patients were done. The incision was less than a Centimetre (just 8mm).

As much as the equipment is vital, the surgeon who operates it also plays a significant role, Dr.Bhuvaneswaran said, and he shared Dr.Balu, Surgical Gastroenterologist went on to gain special expertise on the Robotic Surgery field, to help many patients receive the benefits of this robotic Surgical system.

Dr.Balu shared that this system offers the surgeon wide range of equipment movement, accuracy/precision, 10X image magnification, and 3D imaging to areas in the

- Covai Chronicle

bodies like pelvis and rectum. This method of surgery in turn reduces loss of blood during the procedure, lessens the damage to tissues, pain, recovery and discharge period. He added that all minimally invasive procedures can be done via this advanced method.

Dr.Rajkumar, Surgical Oncologist, Dr.Pavai, Pediatric Surgeon, Dr.Arulmurugan, Surgical Oncologist did the procedures with support from Dr.Prashanth, Chief Anesthesiologist.

All the 15 surgeries are a huge success, and according to Dr.J.S.Bhuvaneswaran, the hospital has done this advanced robotic surgeries at 1/4th of the cost, as the plan is to make such a state-of-the-art procedure affordable to all. He further shared that very soon, the hospital will include cardiothoracic, urology and endo gynaecology Robotic surgeries too.

When asked how many such surgeries are scheduled further, Dr.Balu said they are not working on any targets but solely for the benefit of patients, and they plan to do approximately 200 surgeries in this method in a year.





CORPORATE HEALTH CAMP



Super Speciality Camp, EndoGynec by Dr Vishranthi on 01.07.2022 at Kirloskar Pumps, Arasur.



World Hepatitis Day july28 2022





CORPORATE HEALTH CAMP











Souriau India Pvt Ltd., Malumichampatti, Pollachi Road on 29.06.2022









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