



**SRI RAMAKRISHNA
HOSPITAL**

pulse

Happenings at Sri Ramakrishna...



August is a month that reminds us of the values of compassion, service, and responsibility. As we celebrate India's Independence Day, we also observe World Breastfeeding Week (1–7 August) and World Organ Donation Day (13th August)-occasions that inspire us to strengthen our commitment towards building a healthier and more compassionate society. These observances reflect the very principles that guide Sri Ramakrishna Hospital in delivering healthcare that extends beyond treatment to prevention, awareness, and community well-being. At Sri Ramakrishna Hospital, we continue to advance our mission of providing accessible, ethical, and patient-centric healthcare through clinical excellence, modern infrastructure, and continuous innovation. Alongside offering world-class medical care, we actively engage in public health initiatives, awareness campaigns, and outreach programmes that educate, empower, and encourage healthier lifestyles.



Dr.Sundar Ramakrishnan
Managing Trustee

Every milestone we achieve is made possible through the dedication of our doctors, nurses, allied healthcare professionals, support staff, and the unwavering trust of our patients. As we move forward, we remain steadfast in our vision of creating a healthier future through excellence, empathy, and service. Let us celebrate this month by embracing the spirit of giving, promoting the importance of breastfeeding, encouraging organ donation, and reaffirming our collective responsibility towards the well-being of our communities. Together, we will continue to make a meaningful difference in countless lives.

The field of healthcare continues to evolve rapidly, and at Sri Ramakrishna Hospital, we remain committed to combining advanced medical technology with evidence-based clinical practices to deliver the highest standards of patient care. Every diagnosis, treatment, and recovery journey is strengthened by multidisciplinary collaboration, continuous learning, and our unwavering focus on clinical excellence. Our teams strive each day to ensure that every patient receives safe, timely, and compassionate care.

This month, as we observe “**World Breastfeeding Week**”, we reaffirm the importance of breastfeeding as one of the most effective ways to ensure the lifelong health of both mother and child. Through dedicated lactation support, maternal education, and neonatal care, our specialists continue to promote breastfeeding awareness and encourage families to make informed healthcare decisions. We also observe “**World Organ Donation Day**”, recognising the extraordinary impact of organ donation in giving patients a second chance of life. Creating awareness and encouraging organ donation remain essential steps in addressing the growing need for life-saving transplants.



Dr.S.Rajagopal
Medical Director

The Hospital through young enthusiastic volunteers, collected 31.25 lakh ml of Human milk and after Pasteurizing in our pasteurizing Unit, distributed the entire quantity to the needy infant & also distributed to the hospital in and around Coimbatore

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Setting the Gold Standard in Heart Attack Care

FIRST HOSPITAL IN TAMIL NADU



AHA-CERTIFIED

AMERICAN HEART ASSOCIATION



Comprehensive Chest Pain Center



Redington Foundation Conducted Second Consecutive Blood Donation Drive at Sri Ramakrishna Hospital

Sri Ramakrishna Hospital, Coimbatore, in association with Redington Foundation, successfully conducted its second consecutive Blood Donation Drive, reinforcing their commitment to voluntary blood donation and community healthcare. The initiative saw active participation from Redington employees, channel partners, and vendors. The programme was inaugurated by Shri S. Narendran, Joint Managing Trustee, SNR Sons Charitable Trust, Shri C.V. Ramkumar, Chief Executive Officer, SNR Sons Charitable Trust, Dr. S. Alagappan, Medical Superintendent, Sri Ramakrishna Hospital, and other dignitaries.



Dr. Sridhar Gopal, Consultant Haemato-Oncologist, highlighted the importance of regular blood donation. The event also featured the virtual participation of senior leaders from Redington India. Chief Guest Ms. Swarnalatha, Founder of Swargam Foundation, appreciated the initiative, and Ms. Seetha Dhruva, Managing Trustee, Redington Foundation, thanked all the donors, volunteers, organisers, and hospital team for making the drive a success.



Pre implantation Genetic Testing (PGT)

Encompasses methods that allows embryos to be tested for severe inherited conditions or for chromosome abnormalities relevant to embryo health and viability. In order to obtain embryonic genetic material for analysis a biopsy is required involving the removal of one or more cells. This invasive procedure greatly increases the cost of PGT and there have been concerns that embryo viability could be compromised in some cases. The recent discovery of DNA within the blastocoel fluid of blastocyst and in embryo culture medium has led to interest in the development of non-invasive methods of PGT (NIPGT).

Advantages of PGT

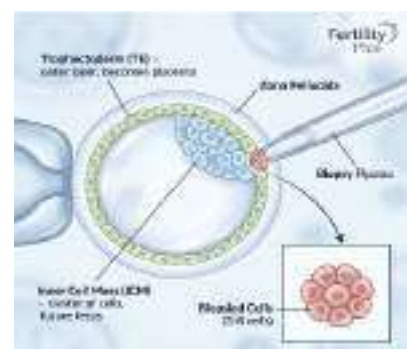
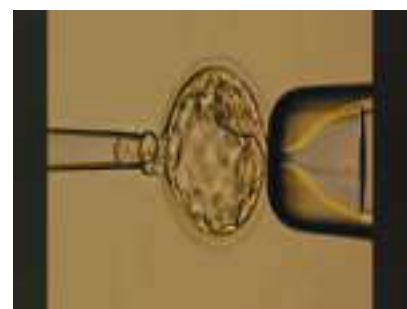
- Reduces the risk of having a child with chromosomal abnormality
- Women who had several unexplained miscarriages can reduce risk of future miscarriage.
- Reduce the risk of having to make difficult decision about whether to abort or continue pregnancy where foetus have chromosomal abnormality.
- Women over the age of thirty-six , PGTA can reduce the risk of miscarriage and number of embryo transfers to achieve a healthy pregnancy.

Disadvantages of PGT

- In some cases, results with respect to cytogenetic data obtained after biopsy may vary because of mosaicism and DNA contamination.
- Expensive and does not increase the overall chance of having a baby.

Three types of screening done in PGT

- PGS for abnormal chromosome number (PGT-A) - In this , embryo is analysed for Aneuploidy in which there is an extra chromosome or missing chromosome. These are some of the conditions where in chromosomal number differs. Downs, turners, trisomy 18, trisomy 30.
- PGT for monogenic disease (PGT-M) - screening is done for monogenic disease which is caused by the inheritance of a single gene mutation that one or both parents carries. These are some conditions where there is change in single gene in Tay Sachs, Sickle Cell anemia, Cystic Fibrosis.
- PGT for structural rearrangements (PGT-SR) – is known for chromosomal misarrangements such as inversion and translocation. These are some conditions where translocation and inversions happened in arms of Chromosome: Haemophilia – X linked congenital coagulation bleeding disorder caused by inversion mutation F8 Gene, Shizopheria Myelogenous Leukemia.



A couple was referred to our centre for PGA of Haemophilia, preliminary genetic testing reported as 30-year-old female Haemophilia carrier, her mother is also a carrier and her brother is affected. The optimised PGD protocol was then performed to detect the disease causing the mutation in the embryos obtained after ovarian stimulation. Six embryos obtained through IVF out of those five embryos biopsied. Trophoctoderm biopsy done on five embryos and sent for PGD testing. Out of the five embryos examined three embryos were not affected and kept for embryo transfer on day 5. This is the advantage of PGD testing and helps in selection of Embryos.

It is inevitable that in the near future women will opt for selecting unaffected embryos with certain heritable disorders like HA as well as the euploid embryos. Which will reduce the chance of abortion due to aneuploids in the later gestation period or improved implantation rate as many researches advocate.

Reference

Pre-implantation genetic testing : a practical guide
- Karolina Palinska-Rudzka, Raj Mathur

Textbook of Assisted Reproductive Techniques –
Volume 1 : Laboratory Perspectives by David K. Gardner

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Precocious Puberty – Importance of Early Recognition and Timely Treatment!

Precocious puberty is defined as the appearance of secondary sexual characteristics before 8 years of age in girls due to premature exposure to sex steroids. This case report highlights the diagnostic approach, therapeutic considerations and challenges in optimizing long term growth outcomes in girls presenting with precocious puberty.

Case :

7 years 8 months old female child presented with history of attaining menarche 5 days back. There was history of appearance of secondary sexual characteristics over the last 1.5 years, but were ignored. Her birth and development history was normal.

Her anthropometric findings: Weight: 37 kg (97 th centile) Height: 128 cm (75th centile) BMI : 22.5 (obese). Her target height: 155 cm (25th centile). On examination, her vital parameters were normal. She had acanthosis nigricans. Her Tanner staging was pubertal.

Her laboratory reports - FSH: 4.15 IU/mL; LH: 3.6 IU/mL; Sr estradiol: 48 pg/mL were suggestive of central precocious puberty. Her Thyroid function tests were normal. Bone age was 11 years 8 months (advanced). USG abdomen showed a pubertal uterus and normal ovaries. MRI Brain showed normal pituitary gland.

This led to a diagnosis of Idiopathic central precocious puberty.

Discussion:

Precocious puberty (PP) is classified as central (gonadotropin-dependent), resulting from early activation of the hypothalamic–pituitary–gonadal axis or peripheral (gonadotropin-independent), caused by autonomous secretion of sex steroids from the gonads, adrenal glands or exogenous sources.

Hormonal profile usually helps in differentiating central from peripheral PP and is usually the first step in diagnosis. Central PP shows stimulated FSH, LH values with high Estradiol while in peripheral PP, high Estradiol values are associated with suppressed LH, FSH values. In doubtful cases, GnRHa stimulation tests may be needed to confirm the diagnosis. This child has elevated Gonadotrophins and Estradiol levels thereby confirming Central PP.

While central PP is idiopathic in the majority of girls, identifying underlying pathological causes is essential, particularly in children with very early onset, rapid progression or atypical clinical features. In this child, a normal MRI brain rules out underlying CNS pathologies, thereby confirming a diagnosis of Idiopathic central PP.

Idiopathic Central PP and obesity are closely linked, although obesity itself is not considered a direct cause of PP. It is often noticed that girls with obesity tend to enter puberty earlier than girls with normal weight. Higher leptin levels, adipokines and inflammatory mediators may influence GnRH neuronal activity and act as a permissive signal for puberty initiation in obese girls

Precocious Puberty in girls can have various physical and psychological effects, especially if it is progressive and untreated.

- Reduced adult height due to accelerated bone maturation and early epiphyseal fusion.
- Early menarche, which can be physically and emotionally challenging for young children.
- Anxiety, embarrassment, and confusion about early body changes.
- Low self-esteem and poor body image.
- Depression or mood disturbances.
- Increased emotional stress due to appearing older than peers.
- Peer teasing, bullying, or social isolation.
- Increased risk of inappropriate attention from older children or adults.

Gonadotrophin - releasing hormone agonists (GnRHa) are the standard treatment for central PP. They suppress the HPG axis, thereby slowing pubertal progression and preserving growth potential. GnRHa helps reduce psychological stress associated with early pubertal development. When started early, it also slows bone age advancement and may allow the child to reach the target adult height.

Dilemmas:

Role of GnRHa in this child?

- Since menarche has already occurred and bone age is quite advanced, the height benefit from GnRHa therapy is limited in this case.
- May have psychological benefits

This case emphasizes the need for early recognition of initial pubertal signs. Delayed presentation can result in advanced skeletal maturation, limiting the potential height benefits of GnRHa therapy.

Careful evaluation, timely referral and individualised treatment decisions are essential to optimize growth and psychological outcomes.

Key take-home message

The two most important reasons to evaluate and treat precocious puberty are:

- To identify and treat any underlying pathology causing the early puberty.
- To preserve adult height and reduce the psychological and social impact of premature pubertal development.

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YOUNG BRAIN, DIFFERENT GAME: WHY NOT EVERY PEDIATRIC HEMIPLEGIA NEEDS THROMBOLYSIS?

Lessons from Recent Cases at Sri Ramakrishna Hospital Department of Pediatric Intensive care

Introduction: Pediatric stroke is an uncommon but potentially devastating neurological emergency. Although often perceived as a disease of adults, stroke can occur at any age, including infancy and childhood. Delayed diagnosis remains a major challenge because symptoms may be subtle, atypical, or mistaken for seizures, migraine, Bell's palsy, trauma, infection, or functional disorders.

Recent American Heart Association (AHA) recommendations emphasize early recognition, urgent neuroimaging, identification of underlying etiology, and prompt multidisciplinary management. The following cases encountered at our institution illustrate the diverse causes of childhood stroke and the importance of maintaining a high index of suspicion.

Pearl 1: Mineralizing Angiopathy of Childhood

History: A toddler presented with acute right side weakness of upper and lower limb following a seemingly trivial fall.

Examination: He had right hemiplegia

Neuroimaging suggestive of Calcific specks within the basal ganglia, characteristic of mineralizing angiopathy of childhood.

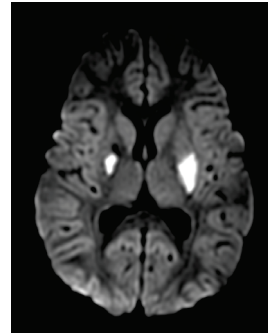


Fig 1. Bilateral basal ganglia infarct in DWI



Fig 2. Punctate calcification in SWI sequence

This condition results from injury to mineralized lenticulostriate arteries following minor trauma. Recognition is important because symptoms can be mistakenly attributed solely to head injury.

Treatment: He received aspirin, therapy, physiotherapy, and speech rehabilitation. Significant improvement occurred during hospitalization, and he was ambulant with support at discharge.

Clinical Pearl: Sudden hemiparesis after a minor fall in a young child should prompt consideration of mineralizing angiopathy.

Pearl 2: Traumatic Internal Carotid Artery Dissection

A 13-year-old boy sustained a severe traumatic brain injury following a road traffic accident. Initial neuroimaging revealed diffuse cerebral edema, traumatic subarachnoid hemorrhage, multiple cerebral contusions, and complex skull fractures, including a fracture involving the petrous part of temporal bone.

After 48hrs of improvement he developed sudden worsening in neurological status. Repeat CT imaging demonstrated critical narrowing and occlusion of the left internal carotid artery, consistent with traumatic internal carotid artery dissection, resulting in a massive left MCA territory infarction.



Fig 3. Airpocket noted in left carotid canal

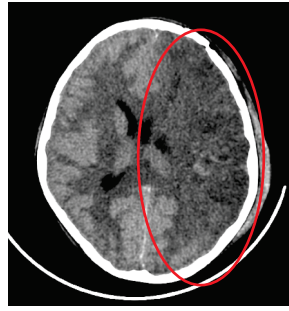


Fig 4. Large MCA infarct

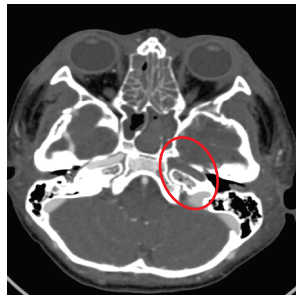


Fig 5. Absent filling of Left internal carotid artery in early phase of contrast study



Fig 6. No flow in Left ICA

Treatment: In view of malignant cerebral edema with significant mass effect, he underwent emergency decompressive craniectomy. The patient required prolonged neurocritical care, mechanical ventilation, comprehensive rehabilitation, and multidisciplinary follow-up. Despite the severity of the injury and subsequent ischemic stroke, he achieved meaningful neurological recovery.

Clinical Pearl: Traumatic arterial dissection should be considered in any child with unexplained neurological deterioration following head or neck trauma. Early vascular imaging can facilitate timely diagnosis and guide appropriate management.

Pearl 3: Post-Varicella Focal Cerebral Arteriopathy

History: A 10-year-old boy presented with headache, vomiting, transient right-sided weakness, and deviation of the angle of the mouth.

Examination: He had revealed right hemiparesis and right upper motor neuron facial palsy.

MRI brain demonstrated an acute infarction involving the left lentiform and caudate nuclei in the left lateral lenticulostriate territory. Vessel wall imaging showed focal narrowing and enhancement of the lenticulostriate branch of the left middle cerebral artery, consistent with focal cerebral arteriopathy.

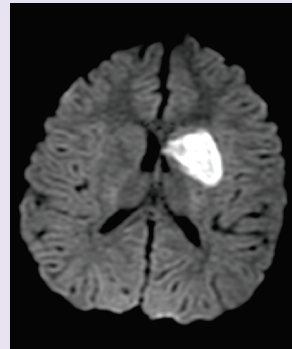


Fig 7. Infarct in left basal ganglia and anterior limb of internal capsule in DWI



Fig 8. Enhancement of left lenticulate striate artery in High-Resolution Vessel Wall Imaging

A previous history of varicella infection provided an important diagnostic clue.

Treatment: The child was treated with aspirin, intravenous acyclovir, pulse methylprednisolone, followed by oral steroids and physiotherapy. He demonstrated progressive neurological recovery.

Clinical Pearl: Post-varicella arteriopathy is one of the most important treatable causes of arterial ischemic stroke in childhood.

Pearl 4: Neuromyelitis optica

History: An 11-year-old girl with a history of optic neuritis 3 years earlier, maintained on immunomodulatory therapy, presented with acute-onset right side weakness of upper and lower limb.

Examination: She had revealed right sided hemiplegia with UMN facial nerve palsy.

MRI brain demonstrated diffusion restriction involving the left internal capsule, initially raising the possibility of an acute ischemic stroke. However, additional imaging revealed the characteristic trident sign along with longitudinally extensive spinal cord involvement, findings consistent with neuromyelitis optica spectrum disorder (NMOSD).

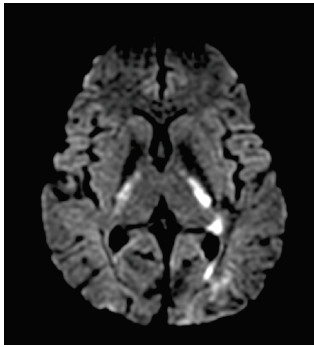


Fig 9. Diffusion restriction in left internal capsule in DWI

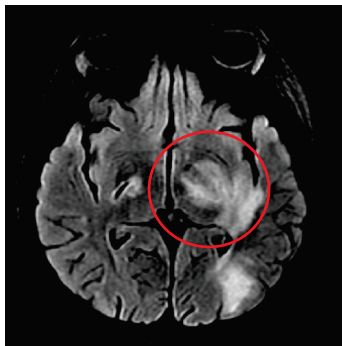


Fig 10. Trident sign



Fig 11. long segment involvement of cord



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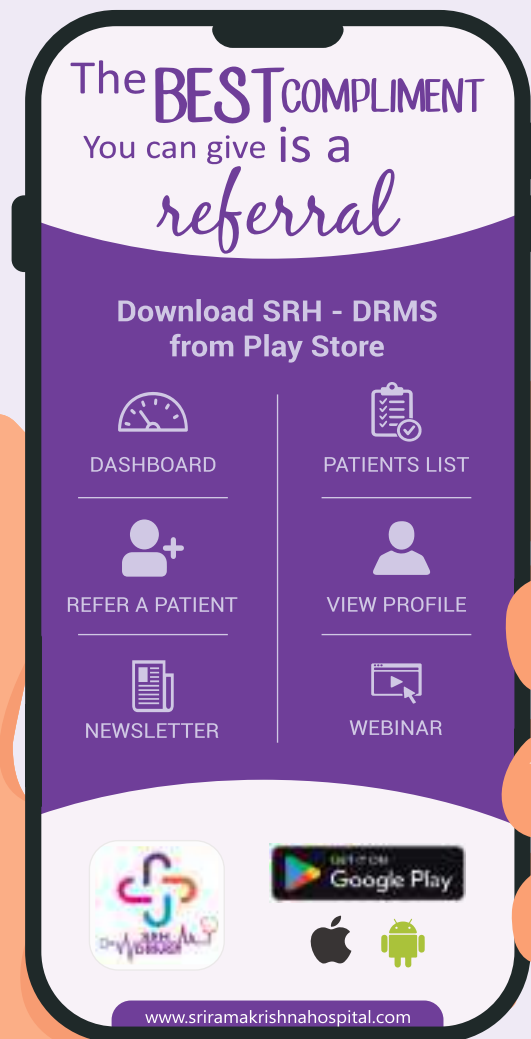
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Treatment: She was treated with high-dose intravenous methylprednisolone pulse therapy, followed by therapeutic plasma exchange and Rituximab. The patient showed excellent clinical improvement, with complete neurological recovery and no residual deficits. She is currently maintained on long-term immunosuppressive therapy and remains neurologically stable on follow-up.

Clinical Pearl: Acute hemiplegia in children is not always due to ischemic stroke. In children with a history of demyelinating disease or optic neuritis, NMOSD should be considered as an important stroke mimic, as prompt immunotherapy can result in excellent neurological outcomes and avoid inappropriate thrombolysis

Conclusion: Acute hemiplegia in children represents a heterogeneous clinical syndrome, with etiologies extending far beyond acute ischemic stroke. These four cases highlight diverse and treatable causes that require distinct diagnostic and therapeutic approaches. These cases emphasize the importance of an individualized, multidisciplinary approach to pediatric acute hemiplegia, where accurate diagnosis, rather than reflex thrombolysis, is the key to successful management.

Early Recognition. Rapid Imaging. Accurate diagnosis, Better Outcomes.



Dear Sir / Madam,

Warm Greetings from Sri Ramakrishna Hospital, Coimbatore.

Thank you for your eternal support to Sri Ramakrishna Hospital. It is our privilege and honour to connect with you, and great pleasure to bring to your kind notice that, We have developed a new mobile app named Dolphin Referral Management System(SRH-DRMS) which helps to track and service our referral patients electronically between you, patients and Sri Ramakrishna hospital.

The mobile app helps to Go Green and to avoid errors as well. Our marketing field force and the respective video product manual are designed, which helps you to enroll smoothly and patient referrals.

Request you to download the mobile app **SRH-DRMS** from the following links

Google Play Store Link for Android:
https://play.google.com/store/apps/details?id=com.drms.prod&pcampaignid=web_share



App Store Link for iOS:
<https://apps.apple.com/in/app/srh-drms/id6466620577>

We assure you the best of our services. In case of any queries, please feel free to contact me.

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