

# pulse

*Happenings at Sri Ramakrishna...*



**Sri Ramakrishna**  
Hospital (Multi-Speciality)





**Shri.R.Sundar**  
Managing Trustee

Warm greetings to everyone as we step into the month of November — a month that reminds us of compassion, care, and commitment towards building a healthier society.

At Sri Ramakrishna Hospital, we take pride in aligning our efforts with global health observances that hold deep meaning — **World Diabetes Day (November 14)**, **Children's Day (November 14)**, and **World Prematurity Day (November 17)**. Each of these occasions reaffirms our mission to protect life at every stage — from infancy to adulthood.

Through **World Diabetes Day**, we continue to raise awareness on prevention, early detection, and effective management of diabetes — one of the most common yet preventable diseases. Our initiatives through community screening, education, and outreach reflect our unwavering commitment to empower individuals to take charge of their health.

On **World Prematurity Day**, we extend our heartfelt support to the tiniest of lives — premature babies — and recognize the extraordinary work of our **Neonatal Intensive Care Unit (NICU)** teams who nurture them with the highest standards of care and compassion. As we near the close of yet another fulfilling year, I express my deepest gratitude to every member of our hospital family for their dedication and teamwork. Let us continue to serve with empathy, excellence, and faith — true to our guiding principle: "Service to Humanity is Service to God."



**Dr.S.Rajagopal**  
Medical Director

November stands as a month of awareness and action, bringing focus to some of the most meaningful observances in healthcare — **World Diabetes Day**, **Children's Day**, and **World Prematurity Day**. Each reminds us of our responsibility to heal, educate, and protect life in all its forms.

On **World Diabetes Day**, we renew our dedication to combating diabetes through prevention, timely diagnosis, and comprehensive management. Our specialized **Diabetes Clinic** and **Community Outreach Programs** continue to make significant strides in educating people on healthy lifestyles and early intervention. **World Prematurity Day** holds special significance for us, as we recognize the incredible resilience of premature babies and the exceptional efforts of our NICU specialists and nursing staff. With cutting-edge neonatal care and a deep human touch, we continue to give these little warriors the best start in life.

As we progress toward the year's end, let us remain steadfast in our mission of delivering excellence in every aspect of healthcare. Together, we continue to uphold Sri Ramakrishna Hospital's legacy — where science meets compassion, and every life matters.

## Editorial Team

**Dr.N.Loganathan**  
Pulmonologist

**Dr.S.Prahadeeshwaran**  
Head - Public Relations

**Mr.Santhosh Vijayakumar**  
Head - Corporate Relations & International Affairs

## A Historic Milestone in Organ Donation – Recognition by the Hon'ble Chief Minister of Tamil Nadu



Sri Ramakrishna Hospital, under the aegis of S.N.R. Sons Charitable Trust, has achieved a monumental milestone in its organ donation campaign – inspiring 45,861 individuals to pledge their organs, reinforcing the noble message of “Gift Organ, Give Life.”

This extraordinary achievement has been recognized by the World Records Union, marking a proud moment for our institution and the city of Coimbatore. To commemorate this global honour, our Managing Trustee, Shri. R. Sundar, had the privilege of meeting the Hon'ble Chief Minister of Tamil Nadu, Thiru. M.K. Stalin, and presenting the World Records Union Citation received by Sri Ramakrishna Hospital for this unparalleled social initiative.

During the meeting, Shri. R. Sundar expressed heartfelt gratitude to the Hon'ble Chief Minister for his visionary leadership in promoting health and organ donation awareness across Tamil Nadu. The Chief Minister appreciated the efforts of Sri Ramakrishna Hospital and the S.N.R. Sons Charitable Trust for their consistent dedication to public health, compassion, and community service.

This recognition stands as a testament to the Trust's unwavering commitment to saving lives through awareness, education, and active participation in organ donation. The achievement reflects the power of collective goodwill – the generosity of thousands who came forward to make a difference, the tireless efforts of our healthcare team, and the leadership that continues to guide us towards greater social responsibility.

As we celebrate this moment of pride, Sri Ramakrishna Hospital reaffirms its pledge to continue creating awareness and inspiring many more to join the cause of organ donation – because together, we can truly give the Gift of Life.



## When TIA Isn't Arterial:

A Case of Transient Ischemic Attack–like Presentation from Cortical Arteriovenous Fistula

**Background:** Transient ischemic attacks (TIAs) are traditionally attributed to arterial occlusive or embolic mechanisms. However, venous or arteriovenous shunting lesions can occasionally mimic TIA through hemodynamic compromise.

### Case Presentation:

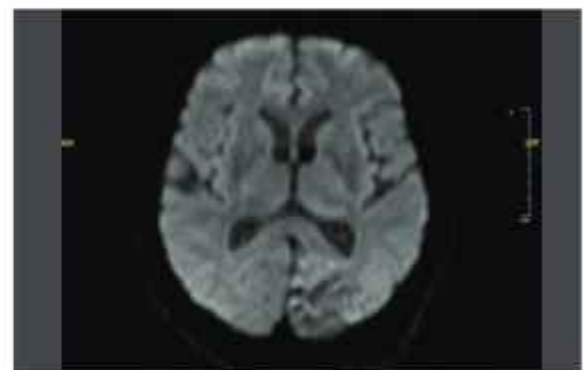
A 54-year-old right-handed male, manager by profession, presented with sudden onset paresthesia and weakness of the right upper limb lasting 45 minutes. Symptoms spontaneously resolved before arrival. He also experienced transient giddiness and noted reduced peripheral vision on the right side during the same episode.

Past history revealed type 2 diabetes mellitus (4 years), bilateral non-proliferative diabetic retinopathy with mild right hemifield visual defect for one year, and coronary artery disease status post-PTCA. No history of similar episodes, seizures, headache, or trauma.

On examination, he was conscious, oriented, with stable vitals (BP 130/70 mmHg, pulse 72/min). Higher functions were normal (MMSE 30/30). Cranial nerve examination revealed right homonymous hemianopia on confrontation, with otherwise intact findings. Motor and sensory examinations were normal. Cerebellar testing showed mild right-sided swaying without dysmetria. A provisional diagnosis of left parieto-occipital vascular lesion (posterior-circulation TIA) was made.

### Investigations:

**MRI Brain (Stroke Protocol):** Gyriform pattern of hemoglobin degradation in the left parieto-occipital lobe with serpiginous leptomeningeal vessels suggesting a vascular anomaly.



**Digital Subtraction Angiography (DSA):** Demonstrated a direct arteriovenous communication between a pial artery and cortical vein without intervening nidus, consistent with cortical AVF (Dural AVF type IV).

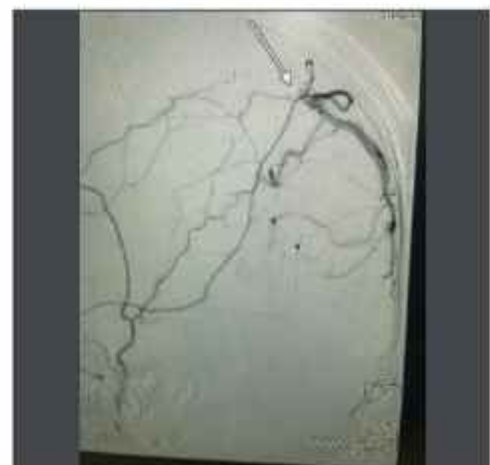


Figure 1. DSA showing cortical arteriovenous fistula (arrow) with direct pial artery–cortical vein communication.

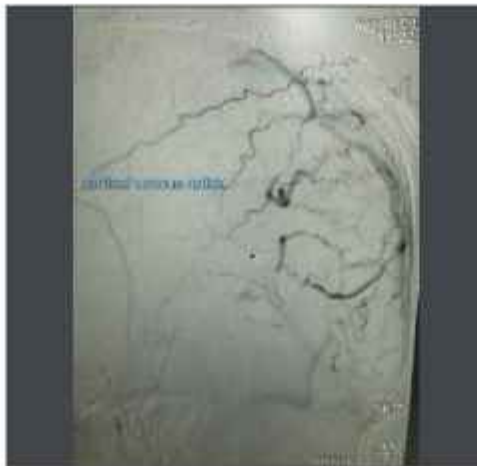


Figure 2. DSA demonstrating cortical venous reflux along the parieto-occipital region.



Figure 3. Microcatheter tip positioned across the fistulous point prior to embolization.



Figure 4. Onyx cast visualized at the site of embolization with complete occlusion of the fistulous communication

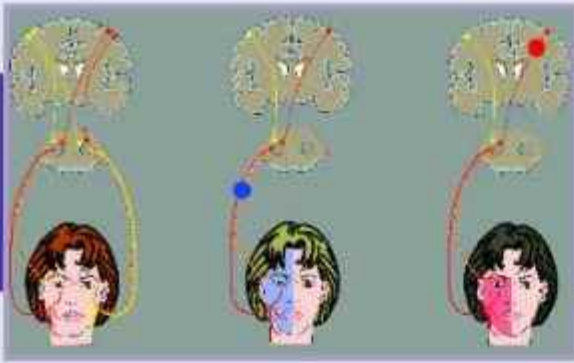
### Treatment and Outcome:

The patient underwent endovascular venous embolization using Onyx. The procedure was uneventful. On follow-up, his right homonymous hemianopia improved to his baseline status, with no recurrence of neurological deficits.

### Conclusion:

Cortical AVF should be considered in the differential diagnosis of transient neurological episodes, especially when imaging reveals abnormal pial vessels. Early DSA diagnosis and endovascular treatment can reverse symptoms and prevent complications such as venous infarction or hemorrhage.





## A case of Bilateral LMN facial palsy

### Introduction:

Neurosarcoidosis is a rare manifestation of systemic sarcoidosis, accounting for 5–10 % of cases. Cranial neuropathies, particularly facial nerve palsy, are the most frequent neurological presentations. Bilateral lower motor neuron (LMN) facial palsy is uncommon and warrants evaluation for systemic causes such as sarcoidosis, tuberculosis, lymphoma, and autoimmune disorders.

### Case Presentation

A 45-year-old woman, homemaker from Coimbatore, presented with deviation of the mouth to the left side for 3 months and difficulty opening her mouth for 1 week. She reported incomplete eye closure bilaterally, intermittent low-grade fever, and 3 kg weight loss over 3 months. There was no history of limb weakness, sensory loss, diplopia, dysphagia, or bladder symptoms.

She was a known case of hypothyroidism on regular medication and had undergone hysterectomy 4 months prior. On examination, she was conscious, oriented, and hemodynamically stable. Neurological evaluation revealed bilateral LMN facial palsy without involvement of other cranial nerves or motor, sensory, cerebellar, or autonomic deficits.

### Investigations

Routine hematological and biochemical parameters, thyroid profile, ANA, ANCA, and nerve-conduction studies were normal. Serum ACE was within the upper-normal range (48 U/L). MRI brain showed no structural lesions.

Chest X-ray revealed mediastinal widening. CT thorax demonstrated enlarged bilateral

paratracheal, prevascular, subcarinal, and hilar lymph nodes. Endobronchial ultrasound-guided biopsy showed non-caseating granulomas, negative for AFB and TB culture. PET-CT confirmed FDG-avid lymphadenopathy involving cervical, mediastinal, and abdominal regions, supporting systemic sarcoidosis.

### Management and Outcome

The patient received pulse methylprednisolone for 5 days, followed by tapering oral steroids. She showed significant improvement in facial movements and was maintained on a gradual tapering schedule.

### Discussion

Facial nerve involvement occurs in 11–25 % of neurosarcoidosis patients, often as an early or isolated finding. Bilateral LMN facial palsy should prompt evaluation for systemic diseases. Imaging evidence of mediastinal lymphadenopathy with histological confirmation of non-caseating granulomas clinches the diagnosis. Exclusion of infections such as tuberculosis and neoplasms is essential. Corticosteroids remain the first-line therapy and generally yield favorable neurological recovery.

### Conclusion:

Bilateral LMN facial palsy is an uncommon but important manifestation of neurosarcoidosis.

Systemic evaluation with chest imaging, serum ACE, and tissue biopsy is crucial for diagnosis.

Early corticosteroid therapy can result in excellent neurological recovery.

## A case of Holmes Adies Pupil

A 35-year-old male presented with complaints of pain over the left forehead and left eye for three months, following an episode of Herpes Zoster involving the ophthalmic (V1) division of the Left trigeminal nerve.

### Examination Findings

Scars were noted over the left V1 dermatome with conjunctival injection.

Uncorrected visual acuity (UCVA):

Right eye: 6/6

Left eye: 6/18

### Pupillary examination:

Right pupil: 3 mm, reacted normally to light (direct and consensual) and accommodation.

Left pupil: 6 mm, non-reactive to light (direct and consensual).

On near vision, the left pupil showed a slow constriction, which remained constricted even after the near stimulus was withdrawn.

### Pilocarpine test (0.125%):

Normal pupil: No reaction.

Left (affected) pupil: Constricted after 25 minutes, confirming denervation supersensitivity.



After instillation of 0.125% pilocarpine the Left pupil constricted, after a period of 25 minutes and became smaller than its counterpart.

Extraocular movements: Full and normal bilaterally.

Deep tendon reflexes: Knee jerks present and active on both sides.

### Serological tests:

RPR: Non-reactive.

HIV ELISA: Negative.

### Diagnosis:

Based on the above findings, a diagnosis of Holmes-Adie pupil secondary to ciliary ganglionitis due to Herpes Zoster Ophthalmicus was made.

**Dr. PAVITHRA.B**

DrNb (Neuro) Resident

### Discussion:

Ciliary ganglionitis as a complication of Herpes Zoster Ophthalmicus is rarely documented. Common ocular complications of herpes zoster include eyelid vesicles, loss of lashes, conjunctivitis, corneal ulceration or scarring, uveitis, glaucoma, retinitis, cystoid macular edema, and optic neuritis.

In this case, the post-herpetic tonic pupil closely resembled an Adie pupil, sharing key clinical features:

1. Absent light reflex
2. Prolonged near response (slow constriction and redilation)
3. Larger pupil compared to the fellow eye
4. Cholinergic supersensitivity (to 0.125% pilocarpine)

The differential involvement of light, near, and dilator fibers in the ciliary ganglion explains the varying presentations:

Destruction of light fibers with sparing of near fibers  
Adie pupil

Damage to light and dilator fibers   Argyll Robertson-like pupil

In this patient, the findings are consistent with Adie's tonic pupil, resulting from selective parasympathetic denervation at the ciliary ganglion due to herpetic ganglionitis.

### Conclusion

This case highlights an uncommon manifestation of Herpes Zoster Ophthalmicus, presenting as Holmes-Adie pupil secondary to post-herpetic ciliary ganglionitis.

Awareness of this rare complication is essential for early recognition, accurate diagnosis, and differentiation from other causes of anisocoria and pupillary light-near dissociation.

**Dr. K.ARUNADEVI**

MBBS, DNB Medicine, DM Neurology,

Consultant Neurologist





## A Rare Case of Stroke in young: Autoimmune Moyamoya Syndrome Successfully Managed with Mechanical Thrombectomy and MCA Stenting

### Introduction

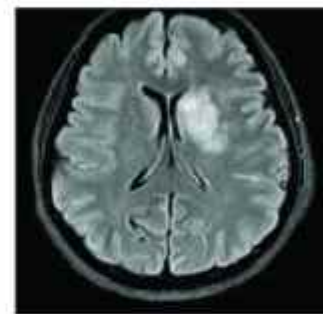
- Stroke in young adults often poses a diagnostic challenge due to atypical etiologies.
- Moyamoya syndrome, a rare vasculopathy characterized by progressive stenosis of the intracranial internal carotid arteries and their branches, can be associated with autoimmune conditions.
- This rare case aims to explore the diagnostic approach and increase awareness of autoimmune-related moyamoya and underline the role of timely endovascular intervention.

### Case:

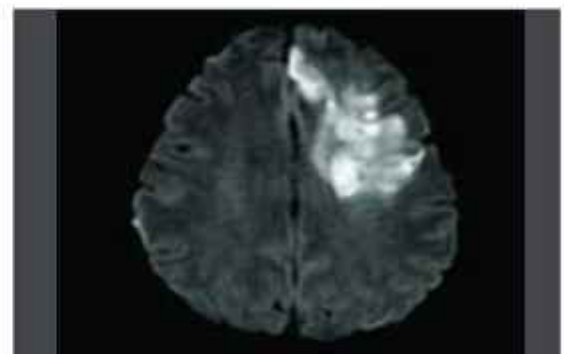
- A 48-year-old woman presented with acute giddiness and dysarthria x 8 hours.
- Initial MRI angiography revealed acute left MCA infarct with Bilateral ICA occlusion and multiple tortuous collaterals consistent with moyamoya vasculopathy.

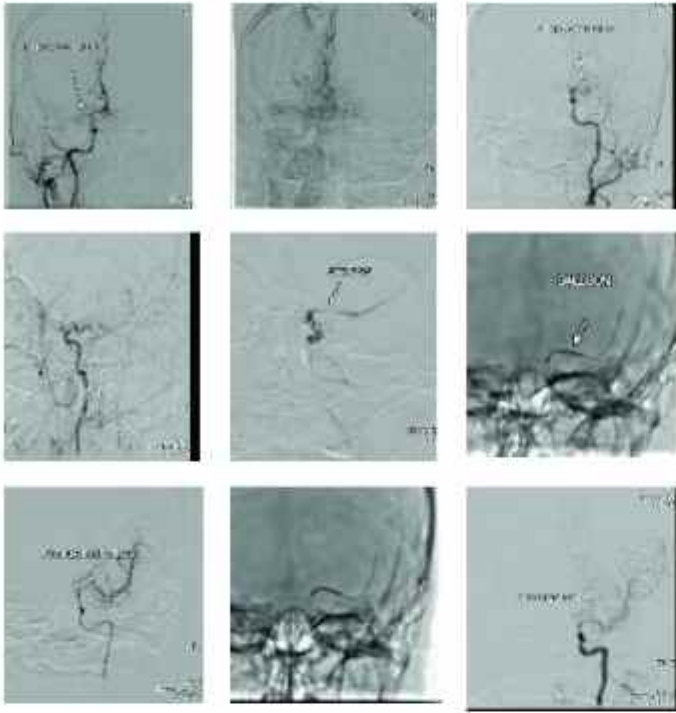


- On Day 2, she had an episode of GTCS followed by complete motor aphasia and dense right hemiplegia. Subsequent imaging proved that she was having an evolving stroke.



- Emergency mechanical thrombectomy and left MCA angioplasty and stenting was performed. Further autoimmune workup confirmed a diagnosis of Sjögren's syndrome.





## Results

- Revascularization was achieved with successful thrombus retrieval and stenting.
- The patient demonstrated marked neurological improvement post-procedure.
- Steroid therapy was initiated to manage the underlying autoimmune condition. No further ischemic events were reported.

## Conclusion

- This case underscores the importance of considering autoimmune etiologies in young stroke, particularly when imaging suggests moyamoya pattern stenosis. Sjögren's syndrome, though typically associated with sicca symptoms, can involve the central nervous system and precipitate serious vascular events.
- Early recognition and a multidisciplinary approach involving neurologists, rheumatologists, and interventional radiologists were key to the favorable outcome.
- Autoimmune-mediated moyamoya syndrome should be part of the differential in young patients with stroke, especially in the presence of radiographic evidence.
- Mechanical thrombectomy combined with stenting can be life saving when applied promptly, alongside appropriate long-term autoimmune management.

**Dr.N.VEDHANAYAGAM**

MBBS, DNB in General Medicine, DNB in Neurology

Consultant Neurologist





## Novel Treatment For An Old Problem

### Introduction

Benign Intracranial Hypertension (BIH) or Idiopathic intracranial hypertension (IIH) is a well-known entity, characterized by increased pressure in the cerebrospinal fluid surrounding the brain. This occurs when there is a mismatch between CSF production and absorption – i.e. under-absorption of CSF, leading to its accumulation around the brain and within the skull. The cause is generally not known. However, with advent of MR venogram the diagnosis of Venous sinus thrombosis as a cause of IIH is increasingly being made. Previously the only treatment for medically refractory IIH was surgery – Theco-peritoneal shunt or Optic nerve decompression. Recently, a novel and minimally invasive treatment – Stenting of the sinuses – is increasingly being used and found to be effective.

We are reporting two cases treated in this manner.

### Case 1

Miss. T, 19 year old female came to us with the complaints of fever followed by severe occipital headache, vomiting and left eye blurring of vision for 7-10 days. However, the headache and vomiting persisted even after the fever settled. On examination, she was afebrile with GCS 15/15 – Conscious, oriented, ambulant. She had left mild ptosis in her left eye, with conjunctival melanocytosis, pupils were 3mm reacting to light, lens clear, with abduction restricted (diplopia in primary gaze). Fundus: disc and margin blurred. Venous dilatation present. Severe papilledema – graded to be stage V with bilateral 6th nerve palsy.

**MRI brain** showed features of intracranial hypertension and narrowing in the lateral part of

bilateral transverse sinuses. (Fig.1.). In view of raised ICT features and no space occupying lesion, she underwent lumbar puncture. CSF was clear, under severe pressure – 600mm CSF (Normal 150-200mm CSF). About 20 ml of CSF was drained. Earlier, the practice was to give Tab. Acetazolamide, and, if no improvement, to do Theco-peritoneal shunt. However this patient's vision was coming down and hence immediate relief was needed. Interventional radiologist saw her and she was taken up for left transverse sinus stenting (Fig.2.). Procedure was uneventful. Post procedure she was put on dual antiplatelets twice daily basis. She was also been treated with tab. Diamox 250 mg thrice daily followed by IV steroids and analgesics and antacids. Her left eye vision, diplopia and the severity of headache improved immediate post-procedure. Patient was clinically stable and discharged on 3rd day.

### Case 2

Mrs. P, 57 year old female, came with the complaints of watery discharge from the nose on and off for 2 years. On examination, patient had GCS 15/15, with no focal deficit. MRI brain showed bilateral anterior cribriform plate defects and severe stenosis in the outer third of both transverse sinuses., Lumbar puncture done showed high pressure. About 25 ml was drained.

Interventional radiologist opinion was obtained and she was taken up for 2 procedures – Transnasal Endoscopic CSF Repair and Right Dural Venous Sinus Stenting. Both procedures were uneventful. Patient had no CSF leak post op. She was put on antiplatelets, tab. Diamox 250 mg TDS along with antibiotics and analgesics. Nasal pack was removed on 5th post op day and she was discharged.

## Discussion

Cerebral Venous Sinus Stenosis refers to the occlusion of venous channels in the cranial cavity. This leads to raised ICT as it raises venous pressure and prevents CSF drainage due to back-pressure. Opening up the sinuses by stenting them, is an elegant, minimally invasive method and is now increasingly resorted to, with gratifying results. The problems associated with shunts are totally done away with.



Fig.1. Showing narrowing of transverse sinuses

## Conclusion

Stenting of Cerebral Venous sinuses is a minimally invasive and safe modality of treatment for Benign ICT where there is Sinus stenosis. We report 2 of our recent cases who did very well.



Fig.2. Showing Stenting procedure

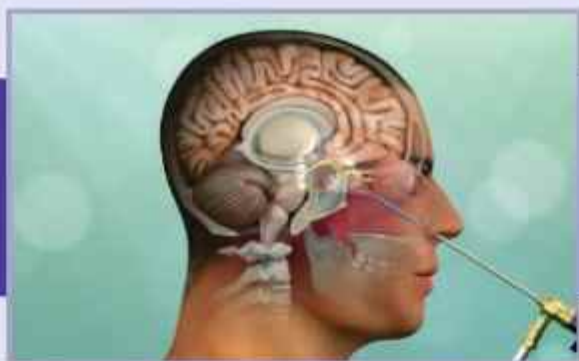
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## Trans Nasal Endoscopic Skull Base Surgeries - Sri Ramakrishna Hospital Experience

### Overview

The skull base is a complex anatomical area supporting the brain and protecting vital neurovascular structures including cranial nerves and arteries governing hearing, vision, and balance as well separating the nose by bony structures covered by mucosa. Transnasal endoscopic skull base surgery (also called endoscopic endonasal surgery) uses this natural corridor of the nose and sinuses to provide a direct view and access to lesions such as sellar/suprasellar tumors like pituitary tumors, craniopharyngiomas, Rathke cleft cysts, meningiomas, chordomas, orbital pathologies, bony defects with CSF leaks, orbital tumors, other skull base tumors, without external incisions. Simple and extended trans nasal endoscopic approaches allow surgeons to operate on tumors, infective and non-infective pathologies, and other disorders at the base of the skull without making incisions in the skull itself, thereby reducing risk, hospital stay, and recovery time compared to traditional open surgeries. Being a complex territory interdisciplinary approach the skull base surgery team comprises of Endoscopic Neurosurgeon, ENT surgeon, Neuro anaesthetist, Neurophysiologist, Neuro biomedical technicians and skull base surgery oriented Neuro OT staffs, endocrinologist, neuro intensivist, along with the technological advancements and equipment's like Navigation, Endonasal CUSA, Intra operative Neuro Monitoring, surgical equipments specifically designed for endo-neuro-skullbase surgery.



Cavitation ultrasonic surgical aspirator



Neuromonitoring device



Navigation assistance for intraoperative localisation



Trans nasal doppler for intraoperative vascular localisation



Trans nasal endo cameleon for variable angle visualization



Trans nasal thin drill for skull base access

### Surgical Approach and Techniques

During the procedure, surgeons insert a rigid variable angle endoscopes or 3D endoscope through the nostrils to reach the skull base guided by detailed imaging like MRI, CT scans, computer navigation based on the imaging. Various approaches are used depending on tumor location, including simple trans septal, transsphenoidal (through the sphenoid sinus), to extended skull base transsellar, trans planum, trans olfactory groove, transpterygoid, and transclival, trans nasopharyngeal combines trans oral, approaches. Advanced techniques such as neuronavigation, trans nasal Doppler, and neuro electrophysiological monitoring, CUSA, are used to avoid injury to critical structures and monitor the neurological functions intraoperatively. Depends on the pathology and the approach single nostril or four hand dual nostril approaches are selected. Preservation of the nasal mucosal barrier is given the equal importance as much as to select the approach to the lesion so as to avoid future problems like empty nasal syndrome and other problems due to transgression of the nasal mucosa.

### Benefits and Outcomes

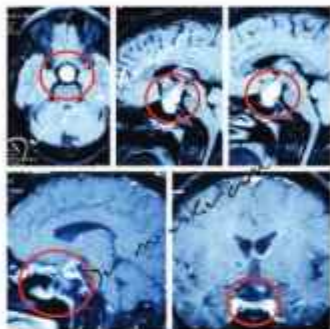
This minimally invasive endoscopic modality avoids brain retraction and external scars, offers improved visualization as the endoscope offers high resolution images close to the pathology and pathological anatomy, and reduces complications traditionally seen with open skull base surgery. Though infections, CSF leaks are potential threats appropriate surgical modality, preservation of mucosal integrity, use of sophisticated skull base reconstruction techniques including multilayer grafts supported by hadad and other mucosal flaps etc., prevent graft displacement and minimises these and most patients recover quickly and return to normal activities.

### Our Experience

So far at Sri Ramakrishna hospitals from 2016 to October 2025 we have completed close to 350 trans nasal surgeries majority being sellar/suprasellar functional and non functional pituitary macroadenomas with or without parasellar, retrosellar, cavernous sinus extensions, Rathke cleft cysts, supra sellar craniopharyngiomas, planum sphenoidal and olfactory groove meningiomas, clival meningiomas, supra sellar hemangiopericytomas, supra sellar germinomas, hypothalamic hamartomas, pilocytic astrocytomas, trigeminal schwannomas, clival chordomas, cribriform plate, ethmoidal, sphenoidal, frontal sinus, Sternberg canal CSF leaks, frontal, sphenoidal, supra orbital pyoceles,

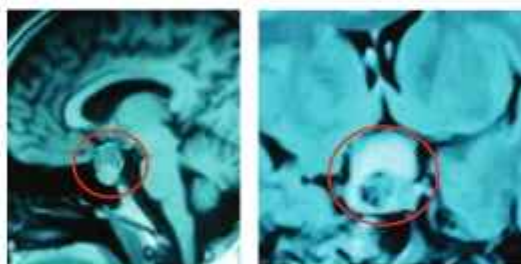
hemangiomas, neurofibromas of the orbit, primary nasopharyngeal carcinoma, congenital meningoceles, etc., we had about 5% csf post op leaks which required re exploration and packing with lumbar drainage, an inadvertent carotid injury for which interventional coiling was required at 3d DSA cathlab, no recurrences in meningiomas, craniopharyngiomas, Rathke cleft cysts, one patient with primary csf rhinorrhoea had recurrence and required re surgery, less than 5% of non functional pituitary patient had recurrence requiring surgery. One patient with germinoma had recurrence at other location in the brain and expired inspite of radiotherapy and chemotherapy. Two cases of suprasellar firm pituitary had post op apoplexy and required trans cranial re explorations for near total excision

### Few Pre and Post OP Case



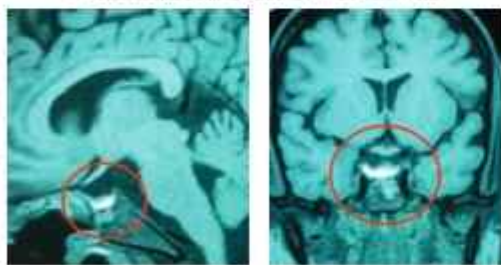
Preop supra sellar pituitary macroadenoma

Post op supra sellar pituitary macroadenoma

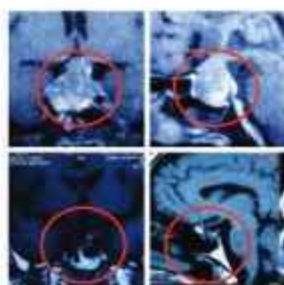


Preop supra sellar pituitary macroadenoma

Post op supra sellar pituitary macroadenoma



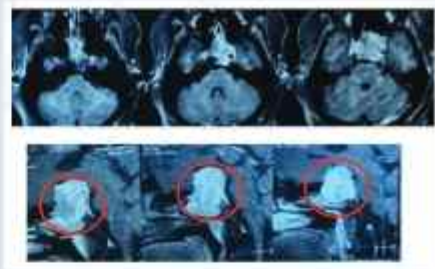
Post op supra sellar pituitary macroadenoma



Preop supra sellar pituitary macroadenoma

Post op supra sellar pituitary macroadenoma

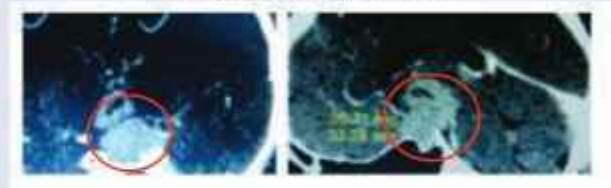
Preop supra sellar pituitary macroadenoma



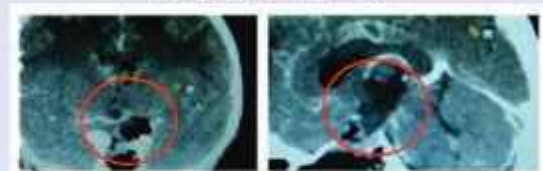
Post op supra sellar pituitary macroadenoma



Preop supra sellar germinoma



Post op supra sellar germinoma



Pre op olfactory groove meningioma



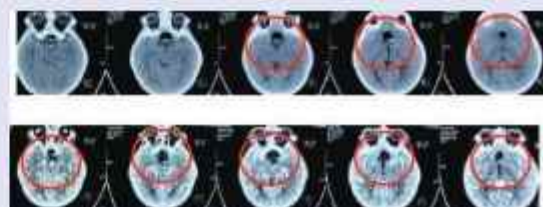
Post op olfactory groove meningioma



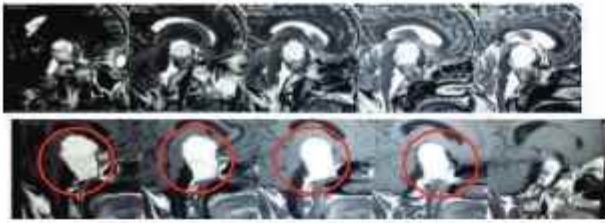
Pre op suprasellar craniopharyngioma



Post op suprasellar craniopharyngioma



Pre op suprasellar craniopharyngioma



Post op suprasellar craniopharyngioma



Pre op suprasellar craniopharyngioma



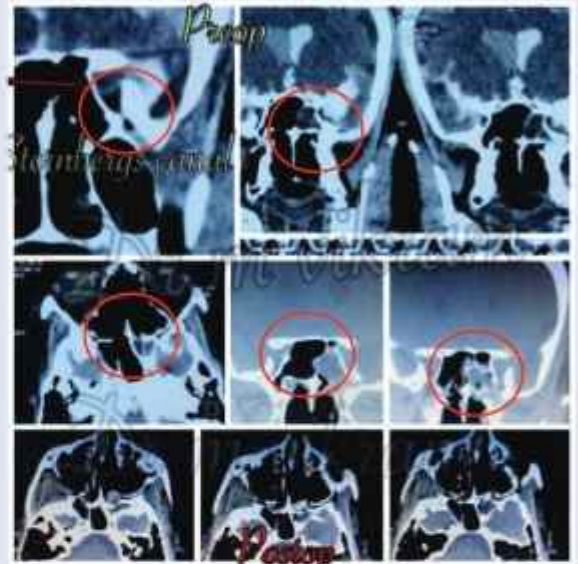
Post op suprasellar craniopharyngioma



Pre op suprasellar craniopharyngioma

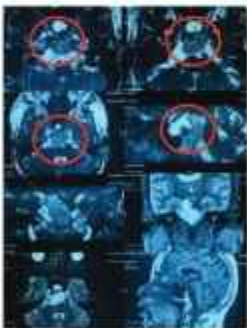


Sternbergs canal csf rhinorrhoea

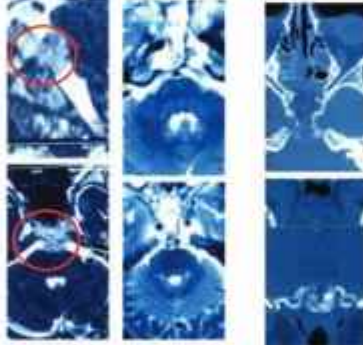


In summary, transnasal skull base endoscopic surgery is a cutting-edge, less invasive surgical option for treating complex skull base lesions with precise visualization and favorable patient outcomes compared to conventional open approaches. It represents a significant advancement in neurosurgical and skull base pathology care.

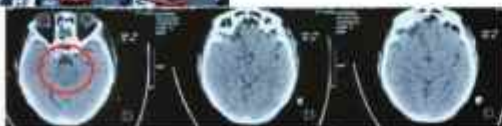
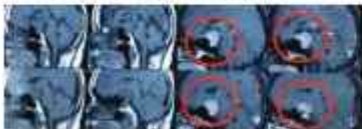
Pre op clival chordoma



Post op clival chordoma



Pre op planum meningioma



Post op planum meningioma

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## Recognize, Respond, Recover – World Stroke Day 2025 Observed at Sri Ramakrishna Hospital



Sri Ramakrishna Hospital commemorated World Stroke Day on October 29, 2025, with an insightful **Panel Discussion on Stroke Awareness and Prevention** and the **launch of a Stroke Awareness Foam Board**, emphasizing the theme "Recognize, Respond, Recover." The event, organized by the Department of Neurology and Neurosciences, aimed to educate the public on identifying early stroke symptoms and the importance of timely intervention.

The program began with a welcome address by **Dr. K. Asokan**, HOD and Chief Neurologist, who stressed the hospital's commitment to community health and stroke prevention. The panel featured distinguished experts including **Dr. K. Aruna Devi**, **Dr. N. Vedhanayagam**, **Dr. M. Vikram**, **Dr. P. Dhivya**, and **Dr. P. Muthurajan**, who shared valuable insights on early detection, emergency response, and rehabilitation strategies.

The foam board, launched during the event with our higher officials **Shri C. V. Ramkumar**, Chief Executive Officer; **Shri D. Mahesh Kumar**, Chief Administrative Officer; **Dr. S. Rajagopal**, Medical Director; and **Dr. S. Alagappan**, Medical Superintendent.

Along with our doctors of Neurologist, Neurosurgeon and Interventional Radiologist, serves as an informative visual guide placed within the hospital premises to help patients and visitors recognize stroke symptoms such as facial drooping, arm weakness, and speech difficulty, while reinforcing the message – "Every Minute Counts."



## A RARE CASE OF SUPERIOR SEMICIRCULAR CANAL DEHISCENCE SYNDROME

**Overview:** Superior semicircular canal dehiscence (SSCD) syndrome is a condition that causes sound or pressure-induced vertigo due to dehiscence in the bony wall of the superior semicircular canal. This was first described by Loyd B Minor et al in 1998(1). As a result of a bony defect in the superior semicircular canal, a "third opening" or "third window" is created between the superior semicircular canal and the middle cranial fossa in addition to the oval window and round window(2). The average age for the onset of this condition is during middle age (38–61 years). The prevalence has been stated to be between 2.1% and 20.4% in radiological studies(3). The pathogenesis of this condition is uncertain but prior studies have implicated possible genetic, embryologic, metabolic, and traumatic etiologies(4). Patients may present with vertigo and oscillopsia induced by loud sounds (Tullio's phenomenon), Valsalva maneuvers, or changes in pressure in the external auditory canal (Hennebert's sign).

They may also have autophony, hyperacusis, pulsatile tinnitus, and hearing loss. On local examination, the patient will have nystagmus evoked by sound or pressure, with eye movements oriented in the same plane as the dehiscent semicircular canal, which is a classic feature. Pure tone audiogram shows supernormal bone thresholds and low-frequency conductive hearing loss(2). Cervical vestibular evoked myogenic potential (cVEMP) testing in these patients will often have responses with lower thresholds of less than 70 decibels [dB] to tone burst testing than in people without the syndrome(5). Diagnosis is confirmed by high-resolution computerised tomography(HRCT) of temporal bone demonstrating dehiscence on coronally reformatted images (Poschl's view)(6).

Surgical management may be offered in patients with debilitating symptoms. The bony dehiscence can be resurfaced, plugged, or capped by different surgical approaches(7). The middle cranial fossa approach allows direct access to the defect without the need for labyrinthine bone removal and the exposure of the surrounding cranial base if the repair is needed for other associated tegmen defects. Combined plugging and resurfacing of the defect achieve better long-term control of the symptoms (2,8).

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**Case description:** Forty-one-year-old man presented to our outpatient clinic with complaints of reeling of the head, wobbling of eyes, and persistent whooshing noise in both ears for five years. He also gave a history of dizziness on hearing loud sounds and on doing Valsalva maneuver. He also had heaviness of head with sense of imbalance on walking. There was no history of autophony. He consulted doctors at multiple hospitals for the same complaints and the diagnosis was not achieved.

A high-resolution CT scan of temporal bones with Poschl's view showed dehiscence in the right superior semicircular canal. c-VEMP showed responses obtained at 65dBnHL on the right side. Pure tone audiometry showed low frequency minimal hearing loss on right side and left hearing sensitivity was within normal limits. Right SSCD syndrome was diagnosed and middle cranial fossa approach with plugging and resurfacing of SSCD was planned.

Figure 1:

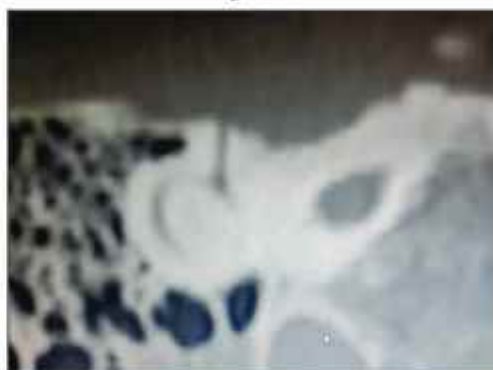


Figure 1: Preoperative HRCT of temporal bone showed bony dehiscence of the superior semicircular canal on right side (arrow).

**Surgery:** Patient was positioned supine with head rotated by 90 degree to left side on head ring, right parietotemporal horse shoe shaped scalp incision was made centering the external auditory meatus. Scalp flap was raised. Right temporal craniotomy was performed exposing the dura. Temporal bone was drilled flush with the middle cranial fossa floor. Temporal dura was gradually reflected carefully not to cause cerebrospinal fluid leakage. Arcuate eminence(AE) was identified and the bony dehiscence was located in the posterior aspect of the AE. There was a second defect identified anterior to the first

defect. Further basal temporal dural reflection was done to create more space for the graft to sit. Thin bony shells over the defects were broken and the defects were defined. Defects were filled with bone dust and then bone wax was overlayed. Free temporalis fascia graft was harvested and placed over the defect and fixed with fibrin glue. Hemostasis was achieved and bone flap was replaced and fixed with miniplates and screws. Scalp was closed in layers.

Figure 2:



Figure 2: Patient was positioned supine with head rotated by 90 degrees to left side. Right parietotemporal horse shoe shaped scalp incision was made centering the external auditory meatus.



Figure 3: Right temporoparietal craniotomy was performed and dura was exposed. Temporal base is marked by single arrow. Temporalis muscle was reflected anteroinferiorly (Double arrow).



Figure 7: This is the closer view showing the AE (single arrow) and the blackish dehiscence (double arrow)

Figure 12:



Figure 12: Bony defect was defined.

Figure 13:



Figure 13: Bony defect was plugged using bone dust (Single arrow).

Figure 15:



Figure 15: Identification of the second bony dehiscence (single arrow) anterior to the first bony defect (Double arrow) and it was filled with bone dust.

Figure 19:

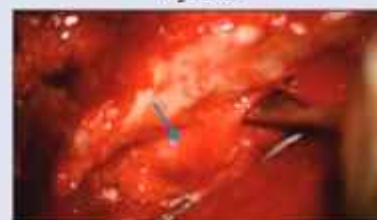


Figure 19: Temporalis fascia free graft (Single arrow) was first placed over the defect and fixed with fibrin glue.

**Postoperative recovery:** Patient made a good symptomatic recovery. Vertigo subsided and he had only mild imbalance on walking. However tinnitus was persisting. Overall he made a subjective recovery by 70%.

#### Postoperative CT scan:

Figure 23:

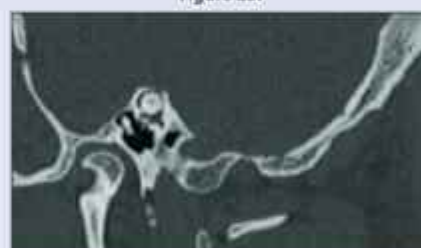


Figure 23: Postoperative HRCT of the right temporal bone showing soft tissue in and around the SSC dehiscence.

#### Basic tenets:

- SCCDS is a rare condition and it is difficult to diagnose.
- High-resolution CT scan of temporal bones with Poschl's view confirms the diagnosis.
- C-VEMP and pure tone audiogram aid in supporting the diagnosis.
- Plugging and resurfacing of the SSCD helps in alleviating the symptoms of SSCD syndrome.
- Middle fossa approach gives direct view of the bony defect and resurfacing is possible only through this approach.

**Dr. DHIVYA PALANISAMY**

MBBS, DNB (Neurosurgery), FRCS (Ed)

Consultant Neurosurgeon



## Department of Laboratory



The Department of Laboratory, Sri Ramakrishna Hospital, has been honoured with the Prestigious Best Diagnostics Award at the HOSPEX Quality Accreditation of India (QAI) Quality Culture Awards 2025, held at the KINFRA Exhibition Centre, Kochi. This remarkable recognition celebrates the department's unwavering commitment to diagnostic excellence, precision, and quality care. It stands as a testament to the team's dedication to upholding the highest standards in laboratory services and contributing significantly to the hospital's mission of delivering world-class healthcare.

## Eat Right Campus

Sri Ramakrishna Hospital, Coimbatore, has been awarded the prestigious "Eat Right Campus" certification by the Food Safety and Standards Authority of India (FSSAI), recognizing its commitment to promoting safe, nutritious, and sustainable food practices. The certification, was granted through TUV India Pvt. Ltd. and Equinox Labs under the Eat Right India initiative. This remarkable achievement reflects the hospital's dedication to maintaining the highest standards of hygiene, nutrition, and wellness for its patients, staff, and visitors.



## Gift Organ, Give Life



Sri Ramakrishna Hospital has been honoured with the prestigious TRANSTAN Award by the Government of Tamil Nadu for its remarkable organ donation awareness campaign, "Gift Organ, Give Life." Through this impactful initiative, over 45,861 individuals pledged to become organ donors, marking a record-breaking achievement in promoting the spirit of giving life. The award was proudly received by Dr. S. Prahadeeshwaran, Head of Public Relations, and Shri. D. Viswanathan, Head of IT, on behalf of Sri Ramakrishna Hospital, recognizing their exceptional dedication and the institution's unwavering commitment to fostering compassion and community welfare.

**SRI RAMAKRISHNA HOSPITAL**  
have been accredited by  
Quality & Accreditation Institute, India for  
**"ADVANCED STROKE CENTRE"**



*Quality And Accreditation Institute*  
*Centre for Accreditation of Health & Social Care*



***Certificate of Accreditation***

***Sri Ramakrishna Hospital***

395, Sarojini Naidu Road, Siddhapudur,  
Coimbatore-641044, Tamil Nadu, India

*has been assessed and accredited in accordance with the  
QAI Accreditation Standards for*

***Advanced Stroke Centre***

*This certificate remains valid subject to continued compliance to the above  
standards & any other requirements specified by QAI.*



**QAI/CAHSC/ASC/2024/0015**

*Valid from: 06 August 2024*

*Valid until: 05 August 2027*

**Dr. Bhupendra Kumar Rana**  
Chief Executive Officer

**Prof. (Dr.) Mahesh Chandra Misra**  
Chair, CAHSC

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