

LINK

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THE OFFICIAL NEWSLETTER OF
NEUROCRITICAL CARE SOCIETY OF INDIA



EDITORS NOTE

Dear LINK Readers,

Welcome to the seventh issue of LINK! So much has transpired since our last newsletter. This issue is filled with recent advancements in neuro-intensive care. We are continually expanding our community, welcoming many new members.

This edition will illuminate the latest developments in neuro-intensive care. We extend our gratitude to everyone who contributed their write-ups, and we encourage students to submit their own pieces as well.

We encourage you to share your thoughts as we strive to make this newsletter a valuable resource for all of you.



DR. MATHANGI. K

DR. SINDHUPRIYA.M

FROM THE SECRETARIAT



**DR. SAURABH
ANAND**

It has been a productive six months since our last general communication, and I wanted to take this opportunity to update you on some of the key activities and achievements of our society. We have seen significant progress in several areas:

1. Membership Growth:

Our society continues to thrive, with a steady influx of new members passionate about advancing the field of neurocritical care. We extend a warm welcome to all our new colleagues. We have also begun updating the membership directory. Everyone will receive their membership number again, which will help us streamline the records.

2. Educational Initiatives:

a) The E-Education Committee has been actively developing new resources and webinars. We celebrated Stroke Month, Head Injury Month, and Epilepsy Month through our webinar series, which was well-received, and the recordings are available on our NCSI channel. I congratulate the entire E-Education Committee for their wonderful work.

b) Apart from the above Education committee formulated the certificate course to train post-MBBS students in NCC the details of which are available on our website. Interested institutions can apply for the same.

c) The Acute Neurocare Course is going great. In the last six months, we have conducted five courses in different locations.

3. **Communication and Engagement:** We have continued to enhance our communication through different social media channels, and I encourage members to actively participate in discussions about updates on these channels. We invite you to stay connected and engage in discussions through our online forums.

These are just a few highlights of the work undertaken in the past six months, driven by the dedication and commitment of our members and various committees.

Additionally, I want to extend my best wishes to the upcoming organising team of PGI Chandigarh, who will be hosting the 6th NCSI under the able leadership of Dr. Nidhi Panda and Dr. Hemant Bhagat. I encourage all members to actively spread the word about the conference and register for it to enjoy this academic feast.

Thank you for your continued support and active participation in the Society. Your contributions are essential to our collective success in advancing the care of critically ill neurological patients.



TREASURER REPORT



DR. KESHAV GOYAL

Dear Friends and Colleagues,

As we gear up for our 6th Annual Meeting at Chandigarh from 4th-7th September 2025, I'm genuinely excited to see the energy and enthusiasm building up. This is our own program, and I sincerely hope each one of you will take pride in participating, contributing, and making it truly special.

From a financial perspective, our position is stable and improving gradually. Our funds are growing, and this puts us in a comfortable space to support initiatives that matter—like our research and travel grants. I urge all of you to actively apply for them. These grants are for you, and I'd love to see some healthy competition. Let's bring out the best among us, and through these opportunities, let's make a real difference together.

Our ANC (Acute Neuro Care) courses continue to do well. Recently, two successful sessions were conducted—one at AIIMS Rishikesh, led by Dr. Priyanka Gupta, and another at Chinmaya Mission Hospital, Bengaluru, facilitated by Dr. Kanchan Bijli. If you haven't already, consider organizing one in your region. It's a great way to contribute and also to spread the word—not just about ANC, but also about our Society and what we stand for.

Our E-Education platform and YouTube channel are growing nicely. We are about to complete a year. Subscriber numbers are almost 1000 and rising, and we're working towards making this resource more focused and valuable, especially for our members. It's wonderful to see how far we've come.

I also want to take a moment to appreciate our Newsletter Team—you're doing a fantastic job! Each issue is engaging, informative, and speaks directly to who we are as a society. It truly is the voice of NCSI, and your hard work does not go unnoticed.

In closing, thank you all for your continued trust and support. Let's keep this momentum going, push our boundaries towards excellence, and help NCSI grow into a stronger, more impactful community. Looking forward to seeing many of you at the meeting!

FROM THE PRESIDENT'S DESK

It gives me great pleasure to welcome you to this latest edition of "Link," our Neurocritical Care newsletter. Thanks to the dedication and enthusiasm of our editorial team, Link has grown into a publication that many of us eagerly look forward to. Its thoughtful blend of professional insights and personal reflections makes it both engaging and informative. Congratulations to the editors, and sincere thanks to all the contributors.

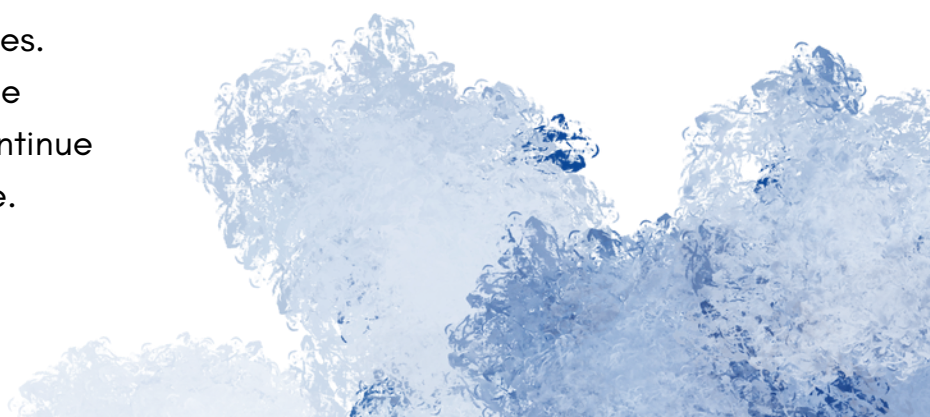
The dissemination of neurocritical care knowledge continues to thrive across the country. The increasing number of ANC courses being conducted nationwide—and the enthusiastic participation they attract—is truly encouraging. We are also witnessing a rise in dedicated CMEs focused on neurocritical care, a testament to the growing interest and commitment within our community.

Preparations for our upcoming annual conference in Chandigarh are progressing well. With thoughtfully designed workshops and scientific program, the event promises to offer immense value to all attendees. Request all the members to attend the conference in big numbers. Let us continue to learn and improve our patient care.

Long live NCSI !!



DR. RAMESH. VJ





Women in Intensive Care in India: Balancing Sacrifice & Success in 2025

“नारी! तुम केवल श्रद्धा हो...”

Dr Prachi Sharma

Associate Consultant
Department of
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"नारी! तुम केवल श्रद्धा हो..." ("Woman! You are the embodiment of faith...")— These timeless words by Jaishankar Prasad resonate deeply with the journey of women anaesthesiologists in India. Every day, they navigate the relentless demands of OT schedules, night shifts, and high-stake decisions, often at the expense of their own well-being and family life. While their contributions are undeniable and their achievements remarkable, the personal cost of this success remains largely unseen—and, far too often, unaddressed.

Anaesthesiology: No Longer an End Branch, But a Longer Journey

Anaesthesia now extends far beyond the General OT, with more women pursuing DM super-specializations in critical care, neuroanaesthesia, cardiac anaesthesia, transplant, and pain management. However, this progress comes at a cost—residencies that once lasted three years now stretch to six or more.

The field often demands long surgeries, unpredictable emergencies, and relentless 24-hour shifts. For women, the load feels even heavier. Pregnancy symptoms, postpartum recovery, and childcare responsibilities don't pause for duty hours. Yet, many women in top hospitals are expected to work through severe morning sickness or come back to work soon after delivery, sometimes without proper maternity leave.

Discrimination persists. Women have been denied academic admissions for being pregnant, barred from exams for taking maternity leave, or forced to resign from corporate jobs when maternity leave was denied altogether. In fact, a study found that 1 in 10 female anaesthesiologists would discourage students from entering the field due to the challenges of motherhood.



Success, but Not Yet Equality

It is undeniable that women intensivists have broken barriers and achieved remarkable feats. They have ascended to leadership roles, spearheaded research, taken the stage as national and international speakers. Recent data highlights that Indian women anaesthesiologists and critical care specialists contribute 45% of articles as first authors and 44% as corresponding authors in Indian journals—an encouraging trend in scientific publishing. Women are now more visible than ever in academic forums and policy-making circles.

While more women are becoming editors in major journals, few reach the role of Editor-in-Chief, reflecting deeper structural biases. JNA now has a female Editor-in-Chief, a step forward, but more needs to be done to ensure equity in leadership and reviewer selection, the onus of which lies on existing editors.

Beyond external barriers, internal struggles persist

Studies show that women in medicine experience "imposter syndrome" more frequently, doubting their own competence despite clear achievements. Compounding this is the well-documented link between female gender and higher burnout rates. When women are constantly expected to overperform to "prove" themselves, it's no surprise that exhaustion and self-doubt follow.

Even in recent years, female anaesthesiologists and intensivists continued to report higher rates of mistreatment and exclusion by surgeons than their male counterparts. This persistent imbalance highlights the pressing need for cultural change in operating rooms and academic spaces, where respect and collaboration should be universal, not gendered.



Time for Institutional Accountability

Representation alone isn't enough. Real progress requires systemic support: fair maternity policies, flexible working hours, mental health resources, and exam structures that don't punish women for taking necessary leave.

Leadership and management teams must actively work toward equity, not passively applaud women for enduring hardships. It's not enough for women to keep promoting themselves — the system must evolve to recognize and uplift their contributions.

Creating an ecosystem of support

Role models provide direction and prove that success is attainable despite challenges, they demonstrate what's possible and inspire others to achieve it. Mentorship is crucial, and so is building strong networks among women.

Social media plays a key role in fostering these networks, enabling women to share experiences, seek guidance, and celebrate achievements. By breaking institutional barriers, these platforms help build mentorship, solidarity, and a collective push for fairness. Real progress isn't just about individual victories.

Redefining Devotion in the new Era

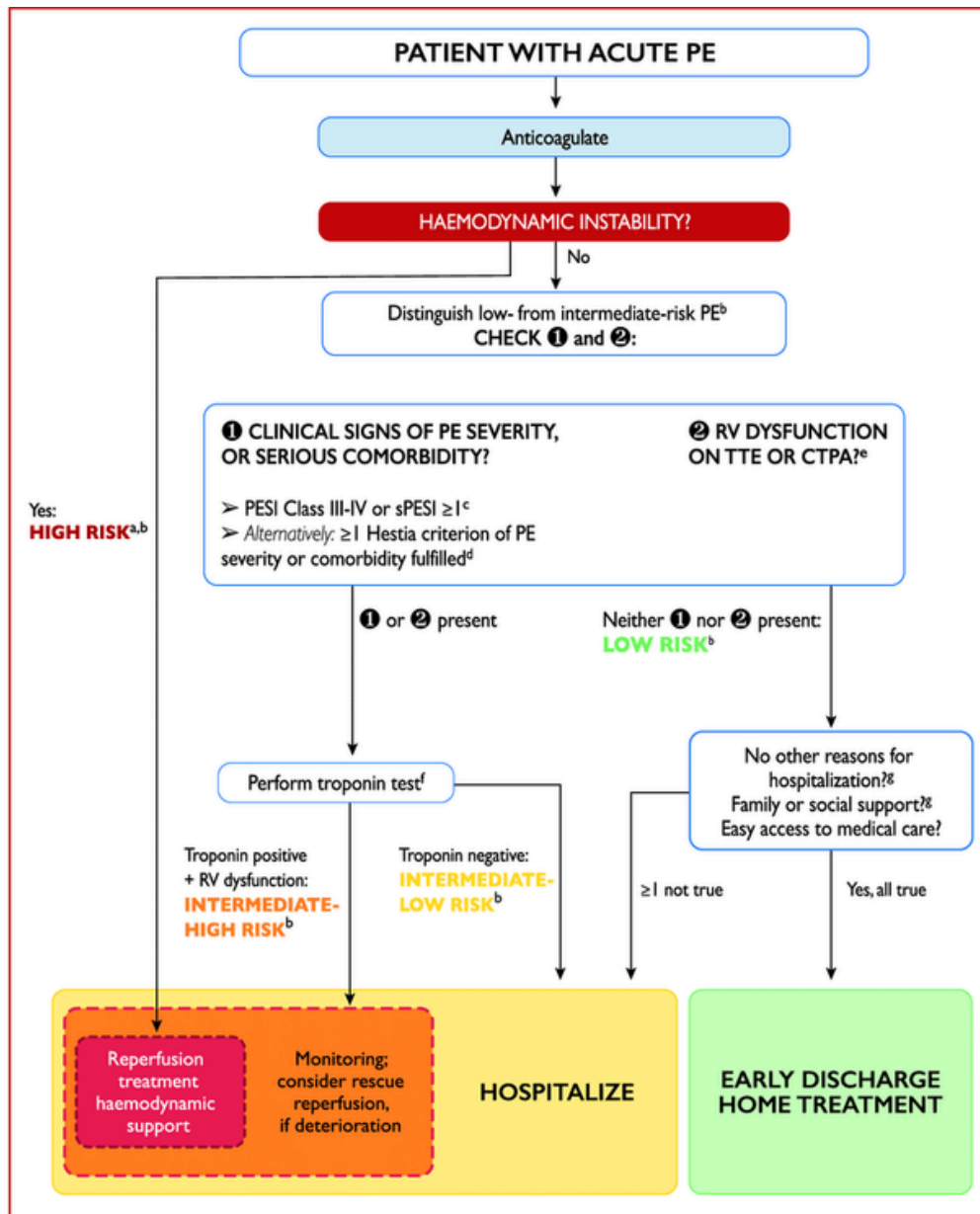
Jaishankar Prasad's words portray women as symbols of faith and sacrifice, but in 2025, it's time to redefine that. Women in anaesthesia are leaders, innovators, and changemakers. Their achievements in research, academia, and leadership deserve recognition, but their well-being must be prioritized too. True progress ensures success doesn't come at the cost of physical or mental health. Women can do it all, but they shouldn't have to do it alone, or fight for basic rights along the way. Because equality isn't just about more women in the room. It's about making sure the room itself is built to support them, so their voices can rise without being drowned out by exhaustion, doubt, or systemic neglect.

MINUTE TO WIN IT



**DR. SANDEEP. R
KOVAI**

ACUTE PULMONARY EMBOLISM



Variable	Original PESI*	Simplified PESI [†] Score
Age > 80 years	Age in years	1
Male sex	+10	-
History of cancer	+30	1
History of heart failure	+10	1 [‡]
History of chronic lung disease	+10	
Pulse ≥ 110 beats/minute	+20	1
Systolic blood pressure < 100 mm Hg	+30	1
Respiratory rate ≥ 30 breaths/minute	+20	-
Temperature < 36°C	+20	-
Altered mental status [§]	+60	-
Arterial oxygen saturation < 90% [¶]	+20	1

*A total point score for a given patient is obtained by summing the patient's age in years and the points for each applicable prognostic variable. The five following risk classes are defined based on patients' total point score: class I (≤65 points), class II (66–85 points), class III (86–105 points), class IV (106–125 points), and class V (>125 points). Patients in risk classes I/II are considered low risk. [†]A total point score for a given patient is obtained by summing the points for each applicable prognostic variable. Patients with 0 points are considered low risk. [‡]The variables were combined into a single category of chronic cardiopulmonary disease. [§]Altered mental status was defined as disorientation, lethargy, stupor, or coma. [¶]Arterial oxygen saturation was defined with and without the administration of supplemental oxygen.

ARE ALL “FLOW REVERSALS” ALWAYS A BAD OMEN?



DR. NEETHU PAVITHRAN
NCSI FELLOW



Introduction

Transcranial Doppler (TCD) ultrasonography is a non-invasive, bedside tool that offers real-time evaluation of cerebral hemodynamics. Among its critical applications is the assessment of the posterior circulation, which includes the vertebral and basilar arteries. A rare but clinically significant finding on TCD is reversal of flow in the basilar artery—a phenomenon that often suggests major underlying vascular pathology but that does not necessarily indicate poor prognosis.

What Is Basilar Artery Flow Reversal?

Under normal physiological conditions, the basilar artery (BA) carries blood cephalad—from the vertebral arteries (VAs) upward to supply the brainstem, cerebellum, and posterior cerebral hemispheres. Flow is typically antegrade, directed from the subclavian arteries through the vertebral arteries into the basilar artery and on to the posterior cerebral arteries (PCAs).

Flow reversal in the basilar artery refers to the abnormal caudal (retrograde) flow of blood—i.e., blood is moving downward from the circle of Willis into the basilar artery, away from the brainstem. This reversal can be partial or complete and is a sign of hemodynamic compromise or occlusion.

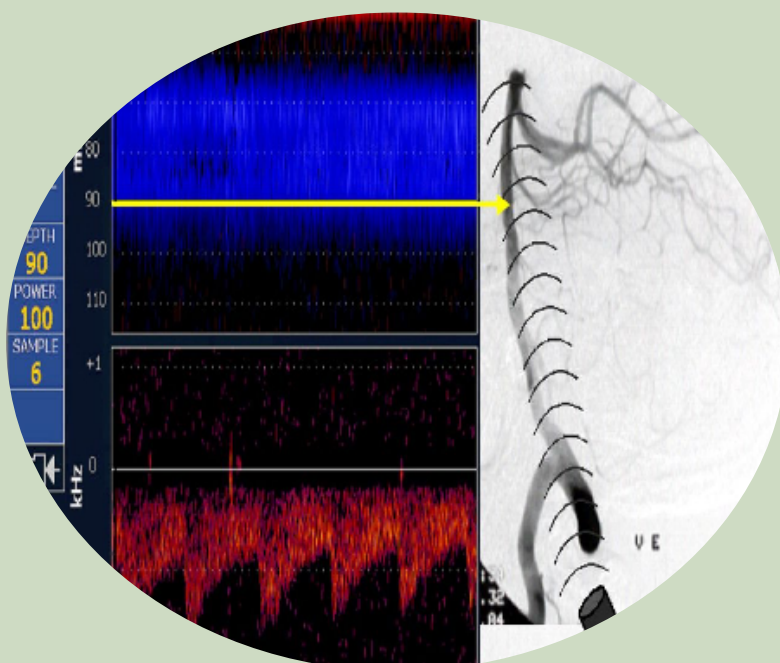


image showing Normal flow in basilar artery. Right, image shows ultrasound probe and beam path. Left, PMD-TCD display shows flow in BA away from the probe at all depths from 60 to 110 mm. Right bottom, TCD spectra were obtained from the mid basilar artery (90 mm).

Acute basilar artery occlusion has been regarded mostly fatal brain stem infarctions. The benefit of thrombolytic therapy, if given early in selected patients, has been established as potentially lifesaving. Clinicians are seeking predictors for negative outcome to select patients for aggressive treatment. Reliable and quick diagnostic techniques are therefore necessary not only for fast confirmation of BA occlusion but also for identification of those patients at higher risk of poor outcome as candidates for interventional treatment.

Angiographic findings of length of BA occlusion or state of collaterals have previously been shown as potential predictors of outcome.¹⁰ Transcranial Doppler sonography has also been used to confirm or exclude acute basilar occlusion

Power-motion Doppler (PMD-TCD or M-mode), displays the artery flow at multiple depths and allows detection of acute occlusions in the anterior circulation with excellent agreement with invasive angiography. PMD TCD be used for quick and reliable detection of BA occlusion and flow reversal in its distal portion. This finding indicates collateralization of flow through the posterior communicating arteries and accounts for lower NIHSS scores at baseline.

Identification

It seems counterintuitive that a reversed flow distal to occlusion has low resistance. This reversed flow develops because of a pressure gradient. During a cardiac cycle, there is never enough pressure to push flow into a completely occluded vessel. However, if occlusion develops in the proximal basilar, a pressure gradient develops between carotid circulation and posterior cerebral arteries, superior cerebellar arteries, and perforating vessels.

If a thrombus or embolus in the proximal BA does not completely occlude basilar all the way immediately, the patient has a chance to recruit posterior communicating arteries and deliver blood from carotids via the reversed basilar stem to parts of the cerebellum and smaller distal basilar branches.

This collateral flow reaches the low-resistance system of cerebellar and brain stem parenchyma, and that is why it has good diastolic frequencies and low-resistance signatures on Doppler. Identification of low-resistance flow moving toward the probe, ie, reversed basilar at 80 to 100 mm, thus indicates continuing perfusion of vital brain structures and explains often partial deficits despite the presence of a proximal basilar obstruction.

Important prognostic factors:

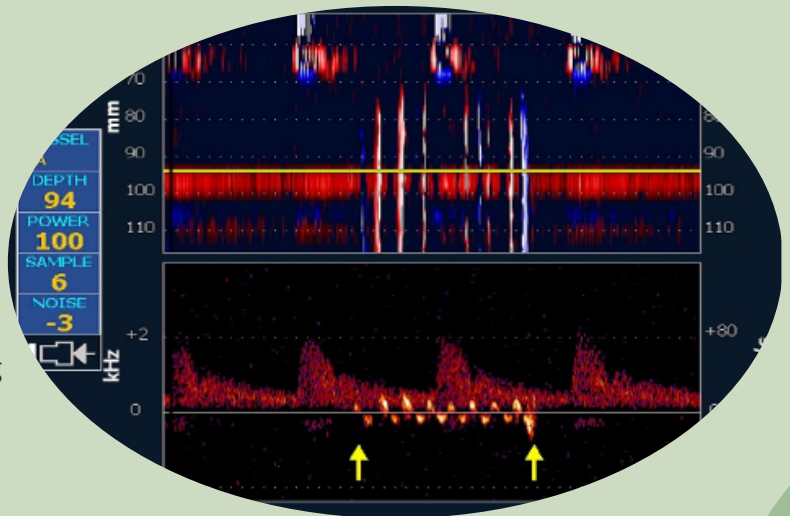
Previous studies demonstrated that length of basilar occlusion and state of collaterals determined by DSA are independent variables affecting survival. Identification of reversed flow in distal BA with PMD-TCD was associated with lower baseline stroke severity and better outcome.

On the other hand, in patients in whom collateral flow cannot be established after acute BA occlusion, stroke severity and risk of neurological deterioration are higher. PMD-TCD can demonstrate favorable collateralization of flow, despite persistence of arterial occlusion, through posterior communicating arteries or even cross-cerebellar flow in some other cases.

A word of caution:

The presence of other retrograde-flow signatures such as venous vessels or the superior cerebellar arteries could be misinterpreted by an inexperienced technician as a reversed BA flow. The absence of an antegrade arterial flow, the presence of a proximal signal compatible with BA occlusion, and a positive carotid tapping test help to rule out pitfalls.

Image showing Reversed distal basilar flow in a patient with proximal BA occlusion. Upper image, PMD-TCD display shows red signal in distal BA (94 to 101 mm), indicating reversed flow. Intermittent blue signal in proximal BA (60 to 75 mm) is highly suggestive of vessel occlusion. Lower image, TCD spectra with carotid tapping is performed (arrows), indicating that flow in BA responds to tapping of the anterior circulation vessel.



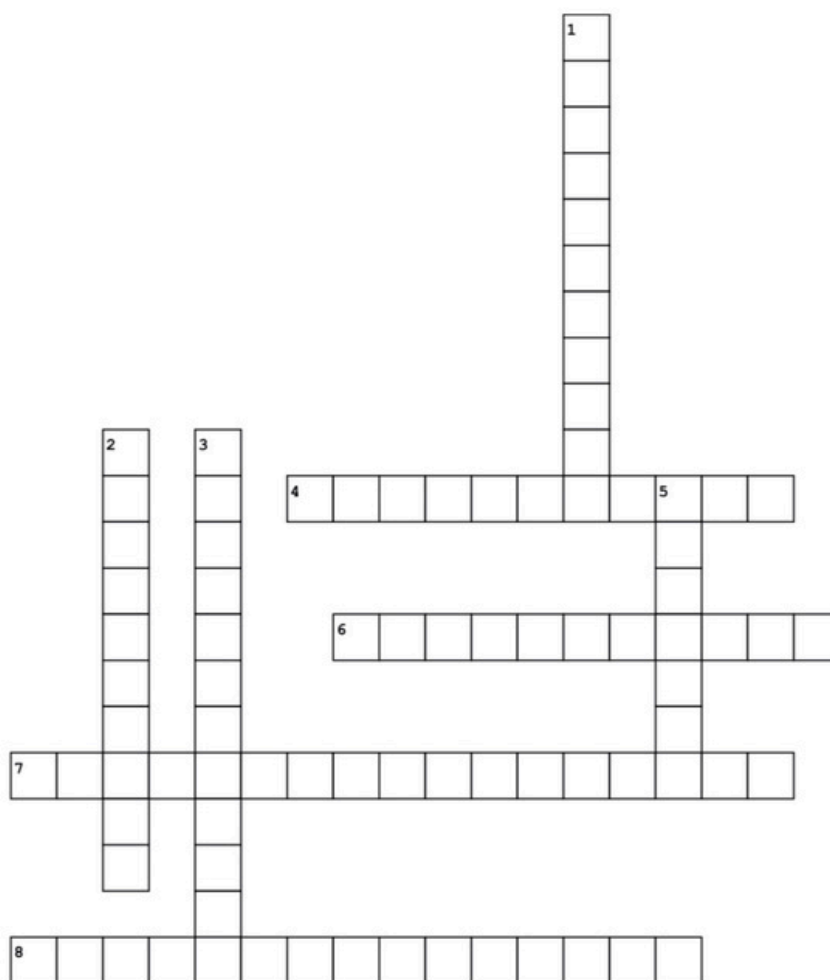
Conclusion

Though by popular belief, a Reversal of flow on TCD is considered a warning sign, that's not true in all cases. A reversal of flow in the basilar artery is a rare but clinically critical finding, associated with lower stroke severity and better outcome after acute basilar artery occlusion. This finding indicates collateralization of flow through the posterior communicating arteries and accounts for lower NIHSS scores at baseline and at discharge and were less likely to present neurological deterioration or poor outcome.



Dr. Bharat. T
Mumbai

JUMBLE MUMBLE



Across

4. reversal agent for dexmedetomidine
6. I am a fifth generation cephalosporin
7. triad of visual disturbance headache and ophthalmoplegia
8. syndrome that is caused by central post stroke pain

Down

1. The vein that connects superficial middle cerebral vein and transverse sinus
2. triad of fever nuchal rigidity and encephalopathy
3. triad of ataxia areflexia and ophthalmoplegia
5. pseudo obstruction of colon syndrome

To solve online - press [LINK](#)

ID PEARLS



DR. SUDHA TERESA
INFECTIOUS DISEASE
CONSULTANT



External ventricular drains (EVDs) are A commonly performed procedure for temporarily diverting CSF and monitoring intracranial pressure. EVD-related infections are mainly caused by microorganisms from the skin flora, similar to central line-associated bloodstream infections. The incidence rate of EVD related infections ranges 9–20% of the patients with EVDs.

In the realm of bundle management, the term ‘bundle’ signifies a comprehensive approach to managing all procedures associated with a catheter in a cohesive way. This approach extends beyond merely addressing individual elements that present infection risks, encompassing everything from catheter insertion to removal, with the aim of reducing the likelihood of catheter-related infections.

EVD placement	All staff wash their hands with an alcohol-based solution and wear a cap and mask.
	Single-dose administration of a first-generation cephalosporin or targeted antibiotics prior to incision.
	Broad shaving of hair using disposable clippers with sufficient room to place an adherent transparent CHG-impregnated gel pad dressing while paying attention to skin damage.
	Physician wears a cap, mask, and sterile gown and gloves.
	The skin preparation area is swabbed with 2% CHG at least 30 times or more for longer than > 1 minute and drying thoroughly before draping.
	Full sterile draping of the patient’s head and body.
	The catheter should be tunneled at least 5 cm from the insertion site.
Dressing	Disinfect with 2% CHG and dry thoroughly before applying an adherent transparent CHG-impregnated gel pad dressing at the catheter exit site.
	Check and record the condition of the insertion and connection sites daily without breaking the seal.
	Dressing does not need to be changed daily; it is changed only weekly or if an abnormality is observed during the daily check-up.
	All staff in the room should wear caps and masks; physician should done an additional sterile gown and sterile gloves.
	Performa a full sterile draping of the patient’s head and body after skin antisepsis preparation using 2% CHG as in the EVD placement step.
Manipulation	Apply a CHG-impregnated gel pad over the catheter exit site.
	The EVD bag is kept separate from the floor and maintained in a vertical position during transport, and staff wearing sterile gloves and a mask are responsible for emptying the chamber.
	The CSF profile test is conducted daily on CSF in the chamber from the third postoperative day.
	When CSF culture is required, the sample is collected from a 3-way stopcock at the access port maintained aseptically under a closed system.
	Once the port is removed, the cap is discarded and replaced with a new, sterile one.
	The Luer fitting inside the port is cleaned multiple times with a disposable chlorhexidine swab.
	CSF draw or flush is performed using a strict sterile technique.

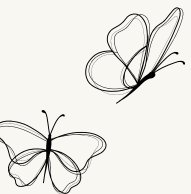




FAILED EVT?! - STENTING TO YOUR RESCUE!



Dr. Vanchula. S



Endovascular thrombectomy (EVT) is the standard of care for acute ischemic stroke due to large vessel occlusion (LVO). However, EVT can fail in 10–30% of cases due to refractory thrombus, underlying intracranial atherosclerotic disease (ICAD), or vessel injury. In such cases, rescue stenting is increasingly used to achieve and maintain vessel patency and improve clinical outcomes.

WHEN TO DO RESCUE STENTING

Rescue stenting is considered when:

- 1) Persistent vessel occlusion or severe residual stenosis after multiple (typically ≥ 3) thrombectomy attempts
- 2) Immediate re-occlusion after successful initial recanalization
- 3) Evidence of underlying intracranial atherosclerotic stenosis ($>70\%$ stenosis)
- 4) Vessel dissection leading to critical stenosis/occlusion
- 5) Severe elastic recoil of the vessel post-thrombectomy

WHOM TO STENT

Stenting benefits those with

- 1) Small infarct core on imaging (ASPECTS ≥ 6)
- 2) Good collateral circulation
- 3) Moderate to severe NIHSS score (6–25)
- 4) Absence of large hemorrhagic transformation on imaging
- 5) Good functional baseline (pre-stroke mRS 0–2)

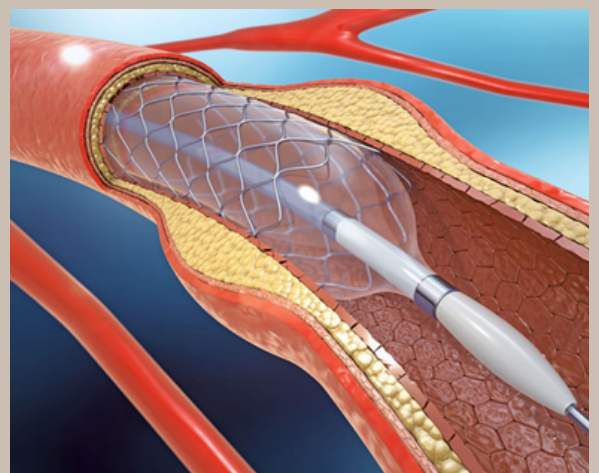
HOW TO? - TECHNIQUES IN RESCUE STENTING

1. Stent Deployment

A self-expanding intracranial stent is navigated over a micro wire and deployed at the site of occlusion or stenosis. Common stents include:

- Solitaire FR
- Neuroform Atlas
- Enterprise stent

These stents are flexible, retrievable before full deployment (if necessary), and suited for the tortuous intracranial vasculature.





2. Balloon Angioplasty (Balloon Dilation)

Balloon angioplasty is sometimes performed before or after stent deployment to:

- Pre-dilate tight stenosis to allow better stent placement
- Post-dilate to optimize stent apposition against the vessel wall
- Address elastic recoil after stent deployment

Techniques:

- Pre-stenting balloon angioplasty: A small, low-profile balloon (e.g., Gateway balloon) is inflated to widen the stenotic segment before stenting.

- Post-stenting balloon angioplasty:

Balloon inflation within the deployed stent to ensure full expansion and wall apposition, especially important in highly calcified vessels.

Precautions: Excessive balloon inflation may cause vessel rupture; therefore, low-pressure and undersized balloons are preferred.

WHY DO WE DO IT?

- Higher rates of successful recanalization:
- mTICI 2b/3 achieved in 70%–90% of cases with rescue stenting.
- Improved functional outcomes:
- 30%–50% achieve modified Rankin Scale (mRS) score 0–2 at 90 days (indicating good recovery).
- Reduction in mortality rates compared to patients in whom recanalization was not achieved.
- Preservation of penumbra and prevention of infarct progression.

3. Adjunctive Antiplatelet Therapy

Given the thrombogenic nature of intracranial stents, antiplatelet therapy is critical:

- Loading dose intra-procedurally of aspirin + P2Y₁₂ inhibitor (clopidogrel, ticagrelor)
- Intravenous glycoprotein IIb/IIIa inhibitors (e.g., tirofiban) may be used for immediate platelet inhibition during or after the procedure
- Transition to dual antiplatelet therapy for at least 3 months post-procedure

RISKS AND COMPLICATIONS:

- Intracerebral hemorrhage (sICH): 5–15%
- In-stent thrombosis leading to early re-occlusion if antiplatelet management is suboptimal, can consider monitoring antiplatelet function using a Thromboelastography and change over of antiplatelet if necessary.
- Stent stenosis or restenosis at follow-up (~10–20%)

Despite these risks, the benefit of achieving successful reperfusion often outweighs the complications, especially in otherwise salvageable brain tissue.

To conclude- Rescue stenting represents a crucial tool in the neurointerventionalist's armamentarium when conventional EVT fails, particularly in patients with intracranial atherosclerosis. Techniques such as balloon angioplasty can aid in successful stent deployment and vessel patency. With careful patient selection and aggressive post-procedural antiplatelet management, rescue stenting offers a substantial chance of meaningful recovery and better long-term outcomes.



INSTACLICK

NEURO ICU TEAM



ST JOHN'S HOSPITAL,
NEUROINTENSIVE CARE UNIT,
BENGALURU

"Coming together is a beginning, keeping together is progress, working together is success"

Mindfulness in Clinical Scenario: Enhancing Compassionate Care in Neurocritical Settings



DR. MATHANGI
HOD, Mind, Body medicine
SRMC, PORUR, CHENNAI

Neurocritical care is a high-stakes, high-stress environment where clinicians are constantly navigating complex decisions amidst uncertainty, emotional distress, and time-critical interventions. In such settings, the cultivation of mindfulness — a state of present-centered, non-judgmental awareness — emerges as a powerful tool to enhance both clinician well-being and patient care.

One accessible technique is the 'STOP' practice, which takes less than a minute:

- S** - Stop what you are doing
- T** - Take a breath
- O** - Observe your thoughts, body, and emotions.
- P** - Proceed with awareness.

This micro-pause before critical events—such as emergency intubation, family meetings, or even routine rounds—promotes clarity, emotional regulation, and intentional action.

Another powerful method is Mindful Prioritization. In a typical ICU shift packed with demands, pausing to ask, “What truly needs my attention now?” can prevent task overload, reduce mental fatigue, and foster more compassionate responses to patients and families.

Other Simple Mindfulness Tools While at Work:

- **Three Deep Breaths:** Take a few slow, deep breaths while washing hands or riding the lift to calm your nervous system.
- **Mindful Listening:** Offer your full attention during patient or caregiver interactions. Avoid rehearsing your reply while the other person is speaking.
- **Compassion Check-In:** Before entering a room, silently reflect: “This person is suffering. May I meet them with kindness.”
- **Gratitude in Charting:** While documenting, remind yourself of the person behind the diagnosis.

These practices are brief, require no special tools, and can be woven into the existing clinical routine. Over time, they foster resilience, reduce burnout, and re-anchor clinicians in the core values of empathy and presence—ensuring that amidst technological complexity, care remains profoundly human.

Ultimately, mindfulness is not just a personal practice but a professional imperative. In the face of technological advances and clinical complexity, it anchors clinicians in humanistic care. By fostering inner clarity and emotional attunement, mindfulness equips neurocritical care providers to navigate suffering with empathy and resilience — ensuring that amidst the beeping monitors and urgent interventions, compassionate care remains at the heart of healing.

21 One Minute Mindfulness Exercises

1. Yawn and stretch

One of the easiest ways to bring yourself back to your body.

2. Sit and observe

Sit down somewhere outside and simply watch the world around you.

3. Wash your hands

Every time you wash your hands, use it as a reminder to come back to the present.

4. The STOP method

Stand up, Tune in to your body, Observe physical sensations, imagine new Possibilities

5. Transition moments

Take advantage of “transition moments,” like walking across a parking lot. Do it with care.

6. Mindful breathing

Take 60 seconds to notice your breathing. When your mind wanders, bring it back.

7. Loving kindness

Loving kindness meditation is a practice to send warmth, kindness and peace to others.

8. Set an intention

Take a one-minute pause in your day to decide how you want to move through the day

9. Self-compassion

Remind yourself that it's common to be hard on yourself, but you need to be nurturing instead.

10. Mindful hug

Ask a partner or friend for a hug. Take three deep breaths together. (Releases oxytocin!)

11. Mindful eating

When you catch yourself eating on autopilot, take 60 seconds to slow down and eat mindfully.

12. Morning meditation

Take one minute right when you wake up to meditate before you begin your day.

13. Chair meditation

When you're at your desk in the middle of your workday, take 60 seconds to meditate.

14. 4-7-8 breathing

Breathe through your nose for 4 seconds, hold for 7 seconds, then breath out for 8 seconds.

15. Box breathing

Visualize a square. Move along each side of the square, breathing, holding, and exhaling.

16. Do a door reset

When you pass a door and enter a new space, use that as a chance to do a mindful reset.

17. Guided meditation

Find a one-minute guided meditation for a quick mental reset.

18. Cloud watching

Pick a cloud, or anything in your environment, and watch it for one minute.

19. Mindful listening

Choose a piece of music you've never heard before. Listen to every element of it carefully.

20. Gratitude

Carve out one minute of your day for a moment of gratitude.

21. Focus

When you catch yourself multitasking, slow down and work on just one thing for one minute.

THE ROLE OF A CLINICAL NEUROPSYCHOLOGIST IN NEUROCRITICAL CARE



Miss. VIDYA MURALIDHARAN
CLINICAL PSYCHOLOGIST

Neuropsychology is a speciality field of clinical psychology that explores how human psyche, cognition and behaviour are related to brain function. A Neuropsychologist is a significant addition to the team of treating doctors as they provide an addition to understanding the level of higher order functioning of an Individual.

In neuro critical care, a clinical psychologist plays a crucial role in assessing, diagnosing, and managing the psychological and behavioral challenges that arise from brain injuries or neurological conditions, offering support to patients and their families, and contributing to holistic patient care.

Here's a more detailed breakdown of their role:

1. Assessment and Diagnosis:

• Neuropsychological Evaluation:

Clinical neuropsychologists, a type of clinical psychologist, are trained to understand the relationship between brain function and behavior, conducting comprehensive assessments of cognition, emotion, and behavior. The various domains that are investigated involves attention, orientation, working memory, recall, recognition, language, comprehension, perceptual ability, and social cognition.

• Identifying Psychological Issues:

They assess and diagnose psychological problems and behavioral dysfunctions that may arise from or be related to physical and mental health conditions, including those stemming from brain injuries or neurological conditions.

2. Providing Psychological Support:

They offer counselling, therapy, and other psychological interventions to help patients cope with the emotional and psychological challenges of their condition.

• Addressing Anxiety, Depression, and Other Mental Health Issues:

They help patients manage anxiety, depression, fear, and other mental health issues that may arise during or after their stay in the ICU.

- **Facilitating Rehabilitation:**

They play a crucial role in the rehabilitation process, helping patients regain lost cognitive and behavioral functions.

- **Family Support:**

They provide support and education to families, helping them understand the patient's condition and how to best support their recovery.

3. Collaboration and Communication:

- **Interdisciplinary Team Member:**

Clinical psychologists work as part of an interdisciplinary team, collaborating with neurologists, neurosurgeons, nurses, and other healthcare professionals to provide comprehensive care.

- **Traumatic Brain Injury (TBI):**

They play a crucial role in the assessment, diagnosis, and management of individuals with TBI, helping them regain lost cognitive and behavioral functions.

- **Neurological Conditions:**

They provide support and treatment for individuals with various neurological conditions, such as stroke, epilepsy, and multiple sclerosis.

By integrating clinical psychologist into neuro critical care patients receive comprehensive patient - centered care that addresses their physical, emotional and psychological needs. They also thrive for improving the quality of life of the patients.

ACUTE NEURO CARE WORKSHOP – AN ORGANISER'S PERSPECTIVE.



DR KANCHAN V BILGI
CONSULTANT
BANGALORE

I had the privilege to host the popular and prestigious Acute Neuro Care workshop at Chinmaya Mission Hospital, Bengaluru, where I work as a neuroanesthesiologist. A passion for teaching and the immense joy that comes with sharing valuable tips and “pearls” of essential knowledge was the motivation behind the desire to conduct the workshop. After getting trained and certified as an AHA BLS/ ACLS instructor, I could suddenly see the reason why the front-runners at ISNACC and NCSI are striving to teach protocolised approaches to Neuro-emergencies.

Protocols save lives. Millions of dollars are spent on research and drug trials for stroke, traumatic brain and spine injury. But these fail to show results in real life emergency scenarios because of lack of awareness about the existence of protocols to manage emergencies. The desire to drive home this point made me take up this cause with my neurosurgeon, neurologist and the hospital administration and they readily agreed. Just a phone call to Dr Rohini Surve, Dr Saurabh Anand, Dr Prasanna Bidkar and Dr Keshav Goyal (NCSI and ANC National coordinators) set the ball rolling!

The following 10 steps that need to be followed to organise an ANC workshop successfully:

1. Getting started: Float the idea with your neurosciences department and have the neurologist and neurosurgeon on board with the plan. They will soon realise the benefits of such a programme for the hospital itself. It makes their work easier since more doctors will get trained in neuro- emergencies. Their support also helps in getting sponsors for the event. Rope in the local neurological / neurosurgical / intensive care society for support.
2. Make an organising team and delegate responsibilities.
3. Instructors: Make a list of ANC instructors in your city / state. At least 8-10 are required for a 1.5 day program. Keep options for last minute cancellations.
4. Dates, schedule and registration link: Fix the dates. Check the co-occurrence of other similar conferences in the city around those dates, they should not clash. One national ANC coordinator should be available on those dates. Get a sample ANC programme schedule and adapt it to your programme. Create a registration link or a QR code to be scanned for registration of participants.
5. Plan the location: Will it be conducted inside your hospital or at another place like a hotel? Conducting the workshop within the hospital will make it easier to get PCPNDT permissions for the use of the ultrasound machine for the hands-on sessions.

6. Teaching material

- a. Educational PPTs and lesson plans: The ANC coordinator will provide these to the organising secretary. These will have to be sent out to the respective speakers individually.
- b. An ANC Manual is usually provided as a PDF to candidates to go through and prepare before the course since a vast number of topics are covered in a short span of time.
- c. Equipment: a list of drugs and equipment will be provided that needs to be arranged for each skill station. Arrange the items in separate bags / kits for each station.
- d. Pre-test self assessment can be taken by candidates on the day of the programme or online beforehand on Google Forms and ensuring mandatory submission while signing attendance at the registration desk.
- e. Post-test: This can be either in the form of a quiz or online written and timed test prior to certificate distribution. The questions may also be discussed with the delegates.

7. Delegates / participants: No delegates, no workshop! Spend time on preparing attractive posters and punch lines and “market” the workshop for the best response! Target WhatsApp groups of intensive care, emergency medicine, anesthesia and neurosciences societies as well as the heads of these departments in and around your city and use social media handles of ISNACC, NCSI. and your hospital. Responses tend to improve as we move closer to the date, do not be discouraged by the slow responses initially. Do try to award state medical council points as an added incentive.

8. Accommodation, travel and food expenses: Plan these well in advance. Keep the budget in mind at each step.

9. Physical arrangements: Make a work list and mark items that need to be completed 3 months, 1 month, 1 week and 1 day before the date of the workshop. Plan suitably for any chief guests, inauguration arrangements, mementos, light and sound arrangements. A dry run 3-4 days prior to the event to check audio-visual arrangements is essential. Laser pointers, Bluetooth slide changers and connectors from the laptop to the projector are some key requirements.

10. Invitations: Welcome letters with the date, time, address, Google maps location, pre-test google forms link can be sent out by email /whatsapp to all participants. If you do not receive an acknowledgement, a follow up phone call is often required to clear any doubts. Similar letters along with phone calls to the speakers are also helpful reminders.

Organising such a workshop was a great learning experience for me. I hope more members of NSCI and ISNACC conduct such programmes! From what we are seeing, the response has been tremendous, highlighting the need to fill the gap in the “golden hour” management of most neuro emergencies.



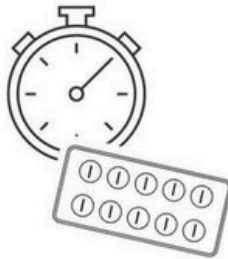
Anticoagulation timing in acute stroke with atrial fibrillation according to chronic kidney disease: the OPTIMAS trial

Philip S. Nash, David Wheeler, Nick Freemantle and David J. Werring, on behalf of the OPTIMAS investigators

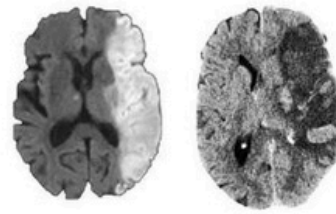
Methods

3601 participants with atrial fibrillation randomized to early or delayed initiation of direct oral anticoagulant (DOAC) after acute ischemic stroke

Randomization



Primary outcome events*



Odds ratio (95% CI)



3058 with normal kidney function



1536 **early** DOAC
1522 **delayed** DOAC

Endovascular Treatment of Stroke Due to Medium-Vessel Occlusion

BACKGROUND

Whether the large effect size of endovascular thrombectomy (EVT) for stroke due to large-vessel occlusion applies to stroke due to medium-vessel occlusion is unclear.

METHODS

In a multicenter, prospective, randomized, open-label trial with blinded outcome evaluation, we assigned patients with acute ischemic stroke due to medium-vessel occlusion who presented within 12 hours from the time that they were last known to be well and who had favorable baseline noninvasive brain imaging to receive EVT plus usual care or usual care alone. The primary outcome was the modified Rankin scale score (range, 0 [no symptoms] to 6 [death]) at 90 days, reported as the percentage of patients with a score of 0 or 1.

RESULTS

A total of 530 patients from five countries were enrolled between April 2022 and June 2024, with 255 patients assigned to the EVT group and 275 to the usual-care group. Most patients (84.7%) had primary occlusions in a middle-cerebral-artery branch. A modified Rankin scale score of 0 or 1 at 90 days occurred in 106 of 255 patients (41.6%) in the EVT group and in 118 of 274 (43.1%) in the usual-care group (adjusted rate ratio, 0.95; 95% confidence interval [CI], 0.79 to 1.15; $P=0.61$). Mortality at 90 days was 13.3% in the EVT group and 8.4% in the usual-care group (adjusted hazard ratio, 1.82; 95% CI, 1.06 to 3.12). Symptomatic intracranial hemorrhage occurred in 14 of 257 patients (5.4%) in the EVT group and in 6 of 272 (2.2%) in the usual-care group.

CONCLUSIONS

Endovascular treatment for acute ischemic stroke due to medium-vessel occlusion within 12 hours did not lead to better outcomes at 90 days than usual care. (Funded by the Canadian Institutes for Health Research and Medtronic; ESCAPE-MeVO ClinicalTrials.gov number, NCT05151172.)

WHAT'S UP?

LINK ISSUE 7- JUNE 2025

Lung-Protective Mechanical Ventilation in Patients with Severe Acute Brain Injury A Multicenter Randomized Clinical Trial (PROLABI)

Luciana Mascia¹, Vito Fanelli^{2,3}, Alice Mistretta⁴, Matteo Filippini⁵, Mattia Zanin², Maurizio Berardino⁴, Anna Teresa Mazzeo⁶, Anselmo Caricato⁷, Massimo Antonelli^{8,9}, Francesco Della Corte^{10,11}, Francesca Grossi¹¹, Marina Munari¹², Massimiliano Caravello¹², Francesco Alessandri¹³, Irene Cavalli¹⁴, Mario Mezzapesa¹³, Lucia Silvestri¹³, Marilena Casartelli Liviero¹⁶, Paolo Zanatta¹⁶, Paolo Pelosi^{17,18}, Giuseppe Citerio^{19,20}, Claudia Filippini², Paola Rucci¹⁵, Frank A. Rasulo⁵, and Tommaso Tonetti^{14,21}

Abstract

Rationale: Lung-protective strategies using low V_T and moderate positive end-expiratory pressure (PEEP) are considered best practice in critical care, but interventional trials have never been conducted in patients with acute brain injuries because of concerns about carbon dioxide control and the effect of PEEP on cerebral hemodynamics.

Objectives: To test the hypothesis that ventilation with lower V_T and higher PEEP compared to conventional ventilation would improve clinical outcomes in patients with acute brain injury.

Methods: In this multicenter, open-label, controlled clinical trial, 190 adult patients with acute brain injury were assigned to receive either a lung-protective or a conventional ventilatory strategy. The primary outcome was a composite endpoint of death, ventilator dependency, and acute respiratory distress syndrome (ARDS) at Day 28. Neurological outcome was assessed at ICU discharge by the Oxford Handicap Scale and at 6 months by the Glasgow Outcome Scale.

Measurements and Main Results: The two study arms had similar characteristics at baseline. In the lung-protective and

conventional strategy groups, using an intention-to-treat approach, the composite outcome at 28 days was 61.5% and 45.3% (relative risk [RR], 1.35; 95% confidence interval [CI], 1.03–1.79; $P=0.025$). Mortality was 28.9% and 15.1% (RR, 1.91; 95% CI, 1.06–3.42; $P=0.02$), ventilator dependency was 42.3% and 27.9% (RR, 1.52; 95% CI, 1.01–2.28; $P=0.039$), and incidence of ARDS was 30.8% and 22.1% (RR, 1.39; 95% CI, 0.85–2.27; $P=0.179$), respectively. The trial was stopped after enrolling 190 subjects because of termination of funding.

Conclusions: In patients with acute brain injury without ARDS, a lung-protective ventilatory strategy, as compared with a conventional strategy, did not reduce mortality, percentage of patients weaned from mechanical ventilation, or incidence of ARDS and was not beneficial in terms of neurological outcomes. Because of the early termination, these preliminary results require confirmation in larger trials.

Clinical trial registered with www.clinicaltrials.gov (NCT01690819).

Keywords: lung-protective ventilation; acute respiratory distress syndrome; acute brain injury

ORIGINAL WORK



Different Responses to Blood Pressure Reduction in Lobar and Deep Intracerebral Hemorrhage

Santiago Clocchiatti-Tuozzo¹, Cyprien A. Rivier¹, Adnan I. Qureshi², Daniela Renedo³, Shufan Huo¹, Charles Matouk³, Nils Petersen¹, Adam de Havenon¹, Kevin N. Sheth¹, Alejandro A. Rabinstein⁴, Guido J. Falcone^{1†} and Maximiliano A. Hawkes^{4*†}

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Abstract

Background: Intensive blood pressure (BP) reduction may benefit patients with acute intracerebral hemorrhage (ICH), but it is unknown if those benefits apply equally to patients with lobar and deep ICH. Our objective was to assess the impact of intensive BP reduction on hematoma expansion (HE), 90-day functional outcomes, and renal adverse events (RAEs) in patients with deep ICH compared with those with lobar ICH.

Methods: This was an exploratory, post hoc analysis of the Antihypertensive Treatment of Acute Cerebral Hemorrhage II (ATACH-2) randomized clinical trial, which investigated the efficacy of intensive BP reduction (110–139 mm Hg systolic BP) versus standard (140–179 mm Hg systolic BP) reduction 4.5 h after acute spontaneous ICH. Our end points of interest were HE (> 6 mL increase in hematoma volume between baseline and 24 h), 90-day functional outcome (modified Rankin Scale score 0–3 vs. 4–6), and RAEs.

Results: Of 1000 ATACH-2 participants, only 875 participants (87.5%) with complete neuroimaging data were included (778 [89%] deep and 97 [11%] lobar, mean age of 62 years, 62% male). Multivariable logistic regressions results showed that intensive BP reduction decreased the risk of HE (odds ratio [OR] 0.60, 95% confidence interval [CI] 0.38–0.93; $p=0.024$) and increased the risk of RAE (OR 2.42, 95% CI 1.29–4.72; $p=0.007$) in deep ICH, whereas in lobar ICH results were nonsignificant for HE (OR 0.91, 95% CI 0.34–2.41; $p=0.9$). Intensive BP reduction was not significantly associated with 90-day unfavorable functional outcome in either deep (OR 1.03, 95% CI 0.71–1.51; $p=0.9$) or lobar (OR 0.97, 95% CI 0.31–2.95; $p=0.9$) ICH.

Conclusions: In this exploratory analysis of the ATACH-2 study, intensive BP reduction was associated with reduced risk of HE and increased risk of RAE in deep but not lobar ICH. These results emphasize the need for a better understanding of the biological differences in ICH, which may have therapeutic implications.

Keywords: Intracerebral hemorrhage, Blood pressure reduction, ATACH-2, Hematoma expansion

WHAT'S UP?

BREWING UP



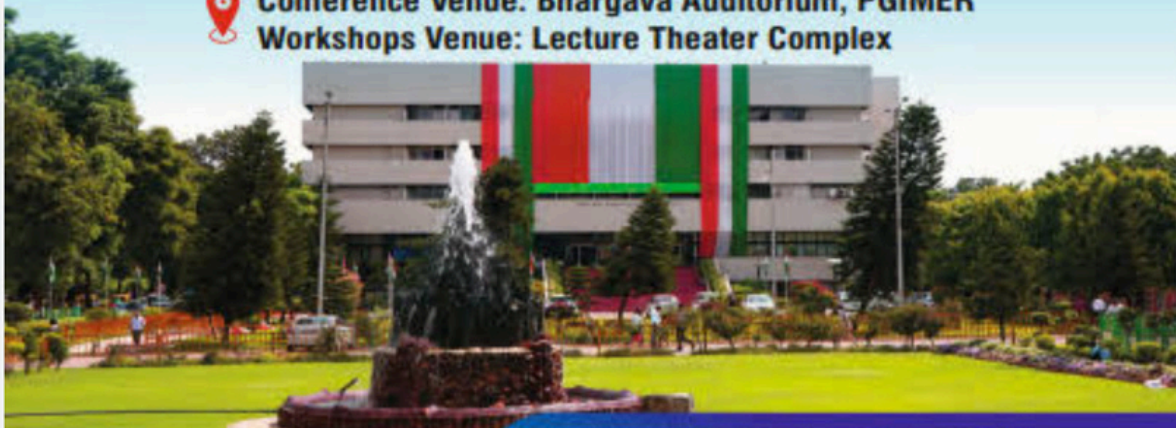
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BREWING UP



CRITICARE 2026
32nd Annual Conference of
Indian Society of Critical Care Medicine

Workshops: 25th & 26th February 2026
Conference: 27th February, 28th February & 1st March 2026
Venue: Chennai Trade Centre, Chennai, Tamilnadu
Theme: Humanisation in the Era of Data Science

CHENNAI

The banner features the ISCCM logo on the left and a circular logo for CRITICARE 2026 on the right. The background is a photograph of a beach and a road in Chennai, with the word 'CHENNAI' in large, white, 3D letters.



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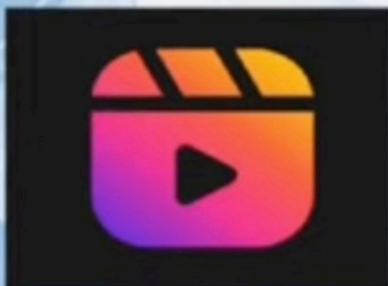


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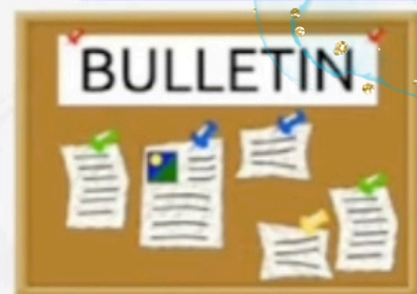


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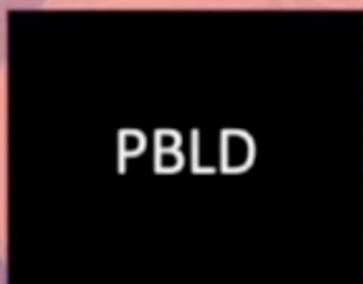
NCSI Reel

02



Journal Club

03



Problem based learning

04



Panel

Activities