PRESS RELEASE

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ESOC 2024 Plenary Highlights (Large Clinical Trials Session): Thursday, 16 May 2024

Blood pressure lowering for intracerebral haemorrhage – the earlier the better

(16 May 2024, Basel, Switzerland) Results from the four randomised controlled INTERACT trials merged find that early blood pressure lowering is most effective in mitigating haematoma growth in acute intracerebral haemorrhage, in fact – the earlier the better.[1]

Data from 2,921 patients with intracerebral haemorrhage (ICH) in the four INTERACT trials, comparing blood pressure (BP) lowering to systolic BP of less than 180 versus less than 140 mmHg, were presented today at the European Stroke Organisation Conference (ESOC) 2024. The four trials, conducted mainly in China, used consistent BP treatment protocols with intravenous agents, as well as standardised imaging assessment and reading protocols. The study aimed to determine whether the timing of initiating BP lowering affected haematoma growth.

The results show that the likelihood of haematoma growth was lower when BP lowering treatment commenced early. In fact, the earlier treatment could be started, the better the reduction in growth, up to a cut-off time point of 3 hours.

Dr Xia Wang, one of the lead authors of the study from The George Institute, Sydney, Australia, commented, “We wanted to determine if very early treatment of BP reduces bleeding in the brain. In our patient cohort, the median time from the onset of ICH to randomisation was approximately 3 hours, and it typically took about 1 hour to achieve a target BP of less than 140 mmHg. Thus, it generally took several hours to achieve BP control after an ICH. In clinical practice, though we can be much quicker, randomisation is not required. Our data shows time influences the potential chances of making a recovery from ICH.”

ICH accounts for 10–30% of all acute strokes but is responsible for half of the stroke-related morbidity and mortality worldwide. Haematoma growth is a key therapeutic target, as it occurs in about one third of patients and is strongly correlated with bad outcomes. Treatment of ICH is time-sensitive since haematoma growth generally occurs within the very first hours after onset.

“We have shown that the principle of "time is brain" is also applicable to ICH. It is our hope that guidelines will not only strengthen but enforce the importance of the time in achieving this level of control.”

END

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References:

1. TIMING OF BP LOWERING TO MITIGATE HEMATOMA EXPANSION IN INTRACEREBRAL HEMORRHAGE: IPD POOLED ANALYSIS OF 4 INTERACT TRIALS. Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.

Combined analysis of SWIFT DIRECT and EXTEND-IA TNK data provides insights into potential benefits of tenecteplase prior to thrombectomy

(16 May 2024, Basel, Switzerland) In a combined analysis of data from the SWIFT DIRECT[1] and EXTEND-IA TNK trials[2,3] tenecteplase prior to thrombectomy was not associated with improved functional independence at 90 days compared with thrombectomy alone, but with a higher proportion of non-disabling functional outcomes. This innovative analysis, presented today at the European Stroke Organisation Conference (ESOC) 2024, overcomes the lack of randomised data by using advanced statistical methods to provide novel insights into the potential benefits of tenecteplase prior to thrombectomy.[4]

In recent years, several studies have compared direct mechanical thrombectomy with intravenous thrombolysis and subsequent mechanical thrombectomy and have shown neither non-inferiority nor inferiority of direct thrombectomy. In these trials, alteplase was the most used thrombolytic drug, while tenecteplase was only used in a minority of patients. A team of researchers from Switzerland and Australia have now used a novel approach to draw inference on the potential benefits of tenecteplase prior to thrombectomy.

Using a target trial emulation design, they combined observational data using the thrombectomy only group of the SWIFT DIRECT trial and patients treated with tenecteplase followed by thrombectomy in the EXTEND-IA TNK Part 1 & 2 trials. The primary outcome was functional independence (defined as a modified Rankin Scale score of 0-2) at 90 days. 427 patients (187 from SWIFT DIRECT and 240 from EXTEND-IA TNK) were included in the analysis.

Altogether, tenecteplase was not associated with a significant increase of patients achieving functional independence. However, across the entire range of the modified Rankin Scale, they found an association of pre-treatment with tenecteplase and better functional outcomes with an adjusted common odds ratio of 1.50 (95% confidence interval 1.05-2.14). Corroborating data derived from patients treated with alteplase, the association of tenecteplase and better outcomes was most evident in patients treated early after symptom onset. Mortality and rates of symptomatic intracerebral haemorrhage did not differ significantly between both groups.

Dr. Valerian Altersberger, who presented the results, commented, “Our results may reflect a potential benefit of bridging with tenecteplase prior to thrombectomy. As the two arms in this target trial emulation originate from different trials conducted within different settings, results should be validated in a randomised controlled trial”.

END

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1. Fischer U, Kaesmacher J, Strbian D, *et al.* Thrombectomy alone versus intravenous alteplase plus thrombectomy in patients with stroke: an open-label, blinded-outcome, randomised non-inferiority trial. Lancet 2022;400(10346):104-15.
2. Campbell BCV, Mitchell PJ, Churilov L, *et al.* Tenecteplase Versus Alteplase Before Thrombectomy for Ischemic Stroke. N Engl J Med 2018;378(17):1573-82.
3. Campbell BCV, Mitchell PJ, Churilov L*, et al.* Effect of Intravenous Tenecteplase Dose on Cerebral Reperfusion Before Thrombectomy in Patients With Large Vessel Occlusion Ischemic Stroke: The EXTEND-IA TNK Part 2 Randomized Clinical Trial. JAMA 2020;323(13):1257-65.
4. BRIDGING THROMBOLYSIS WITH TENECTEPLASE VERSUS ENDOVASCULAR TREATMENT ALONE FOR LARGE-VESSEL ANTERIOR CIRCULATION STROKE. Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.

Clevidipine's potential in blood pressure management following acute ischemic stroke

(16 May 2024, Basel, Switzerland) Clevidipine Infusion for Blood Pressure Management After Successful Revascularization in Acute Ischemic Stroke (CLEVER) RCT offers promising insights into the use of Clevidipine for intensive blood pressure control following mechanical thrombectomy (MT).[1]

This prospective, randomised study aimed to assess the safety and efficacy of intravenous Clevidipine in patients undergoing standard MT within 24 hours of acute ischemic stroke onset.

The study enrolled 80 patients who were randomised into two treatment arms based on systolic blood pressure (SBP) targets (90-120 mmHg vs. 90-160 mmHg) for 24 hours post-MT. Key metrics, clinical outcomes, and radiographic data were recorded per protocol. While the rate of any hemorrhagic conversion per core lab did not differ between the two groups (33% in the BP 90-120 arm and 35% in the BP 90-160 group, P-value 1.00), there was a numerically higher rate of good and excellent clinical outcomes in the 90-160 arm. Only one patient in the intensive blood pressure arm had a major adverse event (pulmonary edema) that resolved with treatment.

The results indicate that Clevidipine is both safe and efficacious in managing blood pressure in stroke patients post-MT.

Dr. Jumaa commented, “One of the challenges of target BP goals in stroke patients is actually reaching the stated range in a timely fashion and without fluctuations, which we know can be detrimental. Clevidipine has a uniquely designed rapid onset and offset of action, making it suitable for blood pressure control after mechanical thrombectomy. Our radiographic and clinical outcomes are also in line with previous studies, and we look forward to a patient level meta-analysis to further understand this complex topic.”

END

Watch a recorded summary from the author

References:

1. CLEVIDIPINE INFUSION FOR BLOOD PRESSURE MANAGEMENT AFTER SUCCESSFUL REVASCULARIZATION IN ACUTE ISCHEMIC STROKE (CLEVER). Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.

Long-term benefit of thrombectomy in patients with large infarcts in the TENSION trial

(16 May 2024, Basel, Switzerland) The TENSION trial, conducted across 41 hospitals in Europe and Canada, has unveiled new insights into the long-term efficacy of endovascular thrombectomy in patients suffering from acute ischaemic stroke with large infarcts.[1]

Ischaemic stroke is a leading cause of disability and mortality, often leaving patients with significant neurological deficits and reduced quality of life. For patients with ischaemic stroke due to an occlusion of a large intracranial artery, mechanical removal of the blood clot, termed thrombectomy, has been shown to dramatically improve the outcome. Until recently, the effect of this intervention in patients who already show extensive signs of infarction was unknown. TENSION, alongside other randomised controlled trials, provided high-grade evidence that patients with extensive ischaemic changes on brain imaging still benefit from mechanical clot removal. While the short-term benefit, measured at 3 months after stroke, had already been demonstrated, the long-term outcome of this patient population remained largely uncertain.

Over the course of the study, which was presented today at the European Stroke Organisation Conference (ESOC) 2024, researchers enrolled 253 patients suffering from acute ischaemic stroke with a large infarct due to large vessel occlusion in the anterior circulation. Selection of patients was based on non-contrast CT and CT angiography only, without the use of perfusion imaging. Patients were randomly assigned to receive either endovascular thrombectomy alongside medical treatment or medical treatment alone within 12 hours from the onset of stroke symptoms.

In TENSION, endovascular thrombectomy was associated with less disability, measured by a shift on the modified Rankin Scale, at the 12-month mark. The study also revealed a 12% absolute reduction in mortality among patients who received endovascular thrombectomy compared to those who underwent medical management alone, despite a high overall mortality in both treatment arms (more than 45% in both groups). Importantly, the benefits of endovascular thrombectomy extended beyond mere survival, with patients reporting a substantially improved quality of life at the 12-month follow-up, as evidenced by higher scores on both the EuroQol-5 Dimensions questionnaire index and visual analogue scale, indicating enhanced overall health status and well-being.

By confirming the long-term benefit of endovascular thrombectomy in patients with large infarctions, the results of TENSION mark a pivotal moment in stroke care, further expanding the therapeutic horizon for patients with acute ischaemic stroke.

TENSION principal investigator, Dr Götz Thomalla, stated, “Even with this simple and pragmatic diagnostic algorithm, endovascular thrombectomy in patients with large infarct was safe and resulted in a significant long-term benefit in functional outcome, which will likely have practical implications for stroke centres.”

END

Watch a recorded summary from the author

References:

1. FUNCTIONAL OUTCOME AND QUALITY OF LIFE AT 12 MONTHS AFTER THROMBECTOMY FOR STROKE WITH EXTENDED LESION IN THE TENSION TRIAL. Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.

A coach-supported smartphone application is modestly effective in reducing dementia risk factors in high risk populations

(16 May 2024, Basel, Switzerland) An international team of researchers found that a coach-supported mobile health (mHealth) intervention is able to reduce risk factors on a dementia risk score in people of low socioeconomic status (SES) or those with dementia risk factors.[1,2] In addition to showing a small but consistent health benefit, the study illustrated that, although challenging, mHealth applications can be implemented in underserved populations.

The research team presented their hybrid effectiveness-implementation randomised controlled trial, PRODEMOS, today at the European Stroke Organisation Conference (ESOC) 2024, which assigned people aged 55-75 years of low SES in UK or from the

general population in China with at least two dementia risk factors to a coach-supported mHealth intervention. To assess effectiveness, the study looked at a change in a dementia risk score from baseline to after 12-18 months post-intervention. Implementation outcomes, such as feasibility and costs, were assessed as secondary outcomes.

In total, 1,488 people were randomised, with 1,229 available for analysis. Over a mean follow-up period of 16 months, the team found that the dementia risk score improved in the intervention group (mean difference -0.16, 95% Confidence Interval [CI] -0.29 to -0.03), as compared to the control group. In addition, the study showed that implementation of the mHealth intervention was feasible, although reaching underserved populations proved challenging. Despite this, 81% of participants adopted the intervention, with 50% remaining actively engaged throughout the study period.

Professor Edo Richard, one of the lead authors on the study from the Radboud University Medical Center in Nijmegen, commented, “The difference we found was small, but consistent. I think we have to be modest about the effectiveness of the mHealth intervention at this point. We do not yet know if this change in a dementia risk score will eventually translate in a reduction in cognitive decline and dementia.”

About the implementation outcomes he is optimistic, “Yes, it was challenging to reach populations with low SES or from low-or middle-income countries, but PRODEMOS showed that it is possible. Once reached, we showed that participants adhere to the tool and actually change their behavior according to the mHealth coaching they get.”

“Our next step towards implementation will be to perform a larger trial with longer follow-up to study whether mHealth interventions can reduce cognitive decline and dementia”, Professor Richard said.

END

References:

1. PREVENTION OF DEMENTIA USING MOBILE PHONE APPLICATIONS (PRODEMOS). Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.
2. Moll van Charante EP, Hoevenaar-Blom MP, Song M, *et al.* Prevention of dementia using mobile phone applications (PRODEMOS): a multinational randomised, controlled effectiveness-implementation trial. The Lancet Health Longevity. 2024 May 16.

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ESOC 2024 Plenary Highlights (Presidential Symposium Award & Large Clinical Studies): Thursday, 16 May 2024

Very early blood pressure control confers both benefits and harms in acute stroke, new study shows

(Thursday, 16 May 2024, Basel, Switzerland) Early identification of stroke type could be key to harnessing the benefits of very early blood pressure lowering treatment in the ambulance for patients with suspected acute stroke, according to new research.[1,2] The reduction in blood pressure improved functional outcomes in haemorrhagic stroke patients, whereas it worsened outcomes in patients with ischemic stroke.

The findings were presented today at the European Stroke Organisation Conference (ESOC) 2024 in Basel, Switzerland and simultaneously published in the New England Journal of Medicine.[1,2]

The INTEensive ambulance-delivered blood pressure Reduction in hyper-Acute stroke Trial (INTERACT4) was a multicentre, randomised, open-label, blinded-outcome study conducted across dozens of ambulance services in China. There were 2,404 ambulance-assessed patients with suspected acute stroke causing a motor deficit within 2 hours of onset and elevated systolic BP (≥150mmHg), who were randomly assigned to immediate BP-lowering (target 130-140mmHg) or usual BP management in hospital.

The pre-hospital ambulance-initiated BP reduction group with haemorrhagic stroke had a lower likelihood of poor functional outcome (common odds ratio [OR] 0.75; 95% confidence interval [CI] 0.60-0.92), whereas the group with cerebral ischaemia had a higher likelihood of a poor functional outcome (OR 1.30; 95%CI 1.06-1.60), compared to patients with these stroke types who received usual care BP management upon arrival to hospital.

Overall, the effects of pre-hospital BP reduction had a balanced benefit and harm, resulting in no overall difference in functional outcomes between those who received the usual care in all the stroke patients. Between-group rates of serious adverse events were similar.

Professor Craig Anderson, Director of Global Brain Health at The George Institute for Global Health and lead investigator on the study, said that although more research is needed, the results provide a potential pathway to improving outcomes in patients with the deadliest type of stroke.

“Our study highlights the clear benefits of early blood pressure lowering treatment for patients with intracerebral haemorrhage in the ambulance. However, it did not alter outcomes for suspected stroke patients overall. In fact, in patients diagnosed with ischaemic stroke, early blood pressuring lowering treatment worsened outcomes, emphasising the need for a reliable diagnosis at an early stage to harness the benefits of very early blood pressure treatment.”

Around 80 percent of strokes worldwide are ischaemic, resulting from the loss of blood flow to an area of the brain due to a blockage in a blood vessel, leading to a loss of neurological function.[3] Intracerebral haemorrhage (ICH) represents over a quarter of all cases of stroke and occurs when blood leaks out of a blood vessel into the brain tissue. ICH is the deadliest type of stroke, with up to one-third of patients dying within 30 days, and it is more common in China where the study was conducted.[4]

“All treatments for acute stroke are highly time dependent, as brain cells rapidly deteriorate when deprived of oxygen. But determining the best treatment approach before identifying the stroke type is difficult without brain imaging,” comments Professor Anderson.

“The results do not support in-ambulance administration of blood pressure lowering treatment in patients with suspected acute stroke – that is clear. However, in the last few years, we’ve seen the introduction of mobile stroke ambulances equipped with CT scanners and diagnostic tools that aim to identify cases of ischaemic stroke for early administration of clot-busting treatment. Additionally, in-ambulance treatment for haemorrhagic stroke is supported by our results.”

“In the meantime, while acute stroke treatment happens in the hospital, quicker diagnosis and swift action upon the patient’s arrival at the emergency department is critical to preserving brain function.”

END

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References:

1. INTERACT4 (INTENSIVE AMBULANCE-DELIVERED BLOOD PRESSURE REDUCTION IN HYPER-ACUTE STROKE TRIAL): MAIN RESULTS. Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.
2. Li G, Lin Y, Yang J, *et al*. Intensive ambulance-delivered blood-pressure reduction in hyperacute stroke. *New England Journal of Medicine.* 2024 May 15.
3. GBD 2019 Stroke Collaborators. Global, regional, and national burden of stroke and its risk factors, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The* ***Lancet Neurology.*** **2021; 20:795–820.**
4. Wu S, Wu B, Liu M, *et al*. Stroke in China: advances and challenges in epidemiology, prevention and management. *The Lancet Neurology.* 2019; 18:394-405

Blood pressure lowering prior to thrombolytic therapy for acute ischemic stroke: All TRUTHs are not to be told

(Thursday, 16 May 2024, Basel, Switzerland) In a groundbreaking study, researchers from the Netherlands have challenged the prevailing guidelines for the treatment of ischaemic stroke patients with elevated blood pressure. The "Thrombolysis and Uncontrolled Hypertension (TRUTH)" study was presented today at the 2024 European Stroke Organisation Conference (ESOC) 2024 and provides crucial insights into the management of high blood pressure in these critical cases.[1]

Intravenous thrombolysis is an effective, clot-busting medical treatment for patients with acute ischemic stroke. This treatment, which is aimed at reopening occluded brain blood vessels, has the potential to dramatically improve the outcome for stroke patients. Guidelines recommend actively lowering blood pressure prior to thrombolysis in patients with blood pressure higher than 185/110 mm Hg, as hypertension is associated with an increased risk of symptomatic intracerebral hemorrhage. There is, however, a lack of robust evidence for this blood pressure lowering strategy. Because rapid lowering of blood pressure may also adversely affect clinical outcomes by decreasing blood supply to the affected brain regions, TRUTH investigators conducted an ambitious cluster-based observational study across 37 stroke centres in the Netherlands.

Centres participating in the TRUTH study had to strictly adhere to either an active blood pressure lowering strategy or to a non-lowering strategy. Acute ischemic stroke patients were included in the study if they had a blood pressure higher than 185/110 mmHg, but were otherwise eligible for thrombolytic treatment. The primary outcome of TRUTH was the functional status 90 days after the stroke.

TRUTH recruited 1052 adult patients with ischaemic stroke between January 1, 2015, and January 5, 2022, but was halted prematurely due to declining inclusion rates and insufficient funding. The study encompassed 853 patients from 27 centres adhering to an active blood-pressure-lowering strategy and 199 patients from ten centres following a non-lowering strategy. They found no difference in functional status at 90 days between the two treatment strategies, although there were numerically more patients with worse outcomes in the group of patients assigned to active blood pressure lowering. There also was no difference in the rate of symptomatic intracerebral hemorrhage, despite nearly twice as many patients in the active blood pressure lowering group treated with thrombolysis (94% vs. 52% in the non-lowering group) and with shorter treatment delays.

Dr Nyika Kruyt from the Leiden University Medical Center in the Netherlands and lead researcher for the TRUTH study stated, "We found insufficient evidence to recommend active blood-pressure lowering patients with ischaemic stroke who have blood pressure levels exceeding the guidelines but are otherwise eligible for thrombolytic therapy. Despite higher rates of intravenous thrombolysis and shorter treatment delays in the active blood-pressure-lowering group, no difference in functional outcomes was observed between the two strategies."

The findings of the TRUTH study, published in Lancet Neurology, underscore the need for additional randomised controlled trials to inform the use of an active blood-pressure-lowering strategy in ischaemic stroke patients.

END

Watch a recorded summary from the author

References:

1. THROMBOLYSIS IN UNCONTROLLED HYPERTENSION (TRUTH): AN OBSERVATIONAL, PROSPECTIVE, CLUSTER-BASED STUDY. Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.

Intravenous tenecteplase 4.5-24 hours after stroke onset improves functional outcome in stroke patients with large vessel occlusion unable to access thrombectomy

(16 May 2024, Basel, Switzerland) In the TRACE III trial, presented today at the European Stroke Organisation Conference (ESOC) 2024, intravenous tenecteplase administered 4.5-24 hours after stroke onset resulted in improved functional outcome in stroke patients with large vessel occlusion unable to access thrombectomy.[1] These results provide evidence for the benefit of tenecteplase in settings where patients do not have immediate access to endovascular treatment.

Previous trials have shown that tenecteplase is an effective thrombolytic drug for stroke patients within 4.5 hours of onset. However, there are limited data on the benefit of tenecteplase beyond 4.5 hours.

The Tenecteplase Reperfusion Therapy in Acute Ischaemic Cerebrovascular Events III (TRACE III) trial randomised patients with acute ischaemic stroke due to large vessel occlusion in the anterior circulation within 4.5 to 24 hours of symptom onset or last seen well who had salvageable tissue on perfusion imaging and were unable to access endovascular thrombectomy to intravenous tenecteplase (0.25mg per kg bodyweight) or standard medical treatment. The trial was conducted in China and enrolled 516 patients.

Treatment with tenecteplase was associated with a higher percentage of patients achieving favourable outcome (modified Rankin Scale score 0 or 1) at 90 days than standard medical treatment (33.0% vs. 24.2%, relative risk 1.37, 95% confidence interval, 1.04 to 1.81; p=0.03). Mortality at 90 days was comparable between groups. There was a numerically higher rate of symptomatic intracranial haemorrhage in the tenecteplase group (3.0% vs. 0.8%).

Prof Yunyun Xiong, who presented the results at ESOC 2024, commented: “The trial demonstrates a clear benefit of intravenous tenecteplase in patients with large vessel occlusion and tissue at risk of infarction up to 24 hours after symptom onset. These results are important for patients arriving in the late or unknown time window who require interhospital transfer and in whom there is no guarantee they will remain eligible for endovascular thrombectomy on arrival.”

The results of TRACE III apply to the majority of patients with large vessel occlusion globally, who either have no access to thrombectomy, or who are unable to access thrombectomy immediately and therefore require interhospital transfer. TRACE III provides new therapeutic opportunities for these patients in the late or unknown time window.

END

References:

1. TENECTEPLASE FOR ISCHEMIC STROKE DUE TO LARGE VESSEL OCCLUSION AT 4.5 TO 24 HOURS WITH PERFUSION IMAGING SELECTION (TRACE III). Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.

Increasing successful rates of first reperfusion attempts: Dual stent retrieval triumphs over single stent

(16 May 2024, Basel, Switzerland) A group of scientists from Spain compared large vessel stroke treatment with two special tools, called stent retrievers, with using just one, to see which was optimal at clearing blockages in blood vessels in the brain. The findings showed that using two retrievers can be of help in shortening the time to first reperfusion.[1]

In the realm of endovascular treatment (EVT) for stroke, the quest for optimal techniques continues. A pioneering study, TWIN2WIN, delves into the efficacy of employing a dual stent retriever (DS) approach as a primary strategy versus a single stent retriever (SS) in achieving first pass recanalisation (FPR) and improving patient outcomes.

EVT has revolutionised stroke care, offering hope for patients with large vessel occlusions. FPR, the immediate restoration of blood flow, is a crucial marker of successful treatment, impacting clinical prognosis. However, when standard techniques falter, innovative approaches like DS deployment emerge as potential rescue strategies.

TWIN2WIN, a prospective multicenter trial, randomised stroke patients undergoing EVT to receive either DS or SS as the primary stent retrieval technique. Notably, the DS approach demonstrated a significantly higher rate of FPR compared to SS, indicating its superiority in achieving rapid restoration of blood flow. Despite the study was underpowered to detect higher rates of final complete recanalization between arms, the authors reported a trend towards a benefit for excellent outcome (almost optimal functional status defined as modified Rankin scale 0-1) with DS over SS.

Between April 2022 and October 2023, 106 patients participated in the study, with DS and SS groups comprising 52.8% and 47.2%, respectively. The DS technique exhibited a remarkable FPR rate of 49%, whereas the SS approach lagged behind at 24%. Interestingly, the mean number of passes was slightly lower in the DS group, suggesting its efficiency in clot retrieval.

Switching techniques after the first pass was allowed, with a subset of SS patients transitioning to DS due to initial failure. While procedural complications and symptomatic intracranial hemorrhage rates showed no significant difference between the groups, the need for rescue therapy was notably lower in the DS arm. Rescue therapy with angioplasty, stenting or lytics was halved with DS compared to SS (5.4% vs 14%)

The findings from TWIN2WIN illuminate the potential of primary DS deployment in enhancing EVT outcomes, particularly in achieving FPR.

While further research is warranted to explore its impact on clinical endpoints, such as functional recovery and long-term prognosis, this study marks a significant step towards refining stroke management strategies and improving patient care. Future trials tailored to assess the direct clinical implications of primary DS adoption are imperative for shaping evidence-based stroke interventions.

END

References:

1. TWIN2WIN: A RANDOMIZED STUDY TO COMPARE THE EFFICACY OF FIRSTLINE DUAL VS SINGLE STENTRETRIEVER TECHNIQUE. PROCEDURAL OUTCOMES. Presented at the European Stroke Organisation Conference; 16 May 2024; Basel, Switzerland.