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Stroke

Splenium of Corpus Callosum Infarction in a 60-Year Old Male- A Case Report

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Introduction: Corpus callosum infarction, while relatively rare, is a clinically significant neurological event, characterised by diverse and subtle manifestations.

Case report: This case report discusses a 60-years old male patient with a medical history of hypertension, coronary artery bypass grafting (CABG) and diabetes mellitus, who presented with cognitive changes and gait abnormalities initially misattributed to metabolic causes. Imaging studies revealed a hypodense area in the left corpus callosum on CT, suggesting and ischemic event. Magnetic resonance angiography (MRA) indicated hyperintensity in the left corpus callosum on T2 weighted images, with associated damage to the periventricular centrum semiovale, and multiple ipsilateral lacunar infarcts. Notably the bilateral internal carotid arteries (ICA) showed symmetric trajectories but a kinking of a right petrous tract, alongside approximately 70% stenosis over a 2cm segment of the left petrous tract. The patient also presented with a dominant right vertebral artery, and both the basilar artery and posterior cerebral artery (PCA) appeared normal, though a fetal aspect of the right PCA was noted. The patient was manged conservatively with dual antiplatelet therapy (DAPT) and 80mg of atorvastatin. Remarkably, significant functional recovery was observed, leading to a satisfactory quality of life post treatment.

Conclusion: This case emphasizes the importance of recognizing corpus callosum infarction as a crutial neurological event. Timely diagnosis and appropriate mangement strategies can greately enhance patient outcomes, warranting further investigations into the condition`s implications and treatment options.

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Diffusion-weighted MRI in Anterior Spinal Artery Stroke of the Thoracic Spinal Cord presenting with Incomplete Brown-Séquard Syndrome

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Background; Spinal cord infarction is unusual, accounting for 1% of all cases of stroke in general hospital. Brown-Séquard Syndrome classically results from spinal cord hemisection, most commonly due to trauma and occasionally from tumor or infarction. Most patients experience an incomplete Brown-Séquard Syndrome with only partial sensory and motor impairment. The diagnosis of spinal cord infarction is primarily made on clinical grounds and neurological examination. Definitive diagnosis of spinal cord infarction in the acute stage is not always possible even with conventional MRI. Thus, application of the diffusion-weighted imaging(DWI) technique to the spinal cord has been expected to allow technique to the spinal cord infarction and more precise evaluation of the status of the disease. Case; A 68-years-old hypertensive man presented an incomplete Brown-Séquard syndrome of sudden onset. Neurological examination revealed weakness of right side lower extremity, and decrease of pinprick and temperature sensation below the T1 dermatome on the left side. The proprioception was intact bilaterally. Thoracic MRI exhibited intramedullary hyperintensity on the ventral two third and right lateral portion of the cord at T1 vertebral level on T2WI and DWI. The mean ADC value of the lesion on the DWI decreased compared with the mean ADC values of the adjacent normal spinal cord. Conclusion; We report an example of the usefulness of DWI for diagnosing patients with suspected spinal cord infarction, and a rare case of anterior spinal artery stroke of the thoracic spinal cord presenting with incomplete Brown-Séquard Syndrome.

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Cases of Ischemic Stroke with Rare Mechanism Diagnosed through Histopathology of Thrombus Obtained through Thrombectomy.

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Background and aims:Pathological examination of the thrombus obtained through endovascular thrombectomy could provide clues to the mechanism of stroke. However, the stroke mechanism cannot be directly identified based on the pathological results.
Methods: We report two rare cases in which pathological examination of the thrombus directly contributed to the diagnosis of stroke mechanism.
Results: Case1. A 60-year-old woman presented to the emergency department with right hemiparesis. Left ICA occlusion was diagnosed, and several attempts of endovascular thrombectomy were performed, and a white, semitransparent substance was extracted. The specimen was sent to the pathology laboratory, where tumor cells containing myoid stroma were found. Echocardiography revealed a 5x3cm heterogenous echogenic mass in the left atrium. The patient was referred to cardiac surgery, and the resected tumor was ultimately diagnosed as a cardiac myxoma.
Case2. An 81-year-old man who was being treated for pneumonia developed altered mental status. CT angiography revealed basilar artery occlusion, and emergency endovascular thrombectomy was performed. Pink and yellow materials were extracted. Pathological examination of the thrombus revealed a fibrinous exudate containing inflammatory cells, leading to the suspicion of infective endocarditis-related stroke. Subsequent echocardiography were performed, and a 1cm-sized mobile echogenic mass, which was not observed in the previous echocardiography 3 weeks ago, was observed in the mitral valve.
Conclusions: Understanding the characteristics of thrombus could be helpful in the differential diagnosis of rare causes of acute ischemic stroke.

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Simultaneous Multifocal Intracranial Hemorrhages from Ruptured Mycotic Aneurysms – A Case Report

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Intracranial mycotic aneurysms (IMAs) are rare neurovascular lesions that usually involve the smaller distal middle cerebral artery cortical branches, with only about 5% of the cases occurring in the posterior cerebral artery. Spontaneous rupture resulting in intracerebral and subarachnoid haemorrhages is an unusual and catastrophic event which results to poor neurological outcome and high mortality rate. In this paper, we report the case of a 17-year-old, hypertensive, male with multifocal ruptured aneurysms involving the left P2P segment of the LPCA and cortical M4 segment of the RMCA, with subsequent resection of the former. Anti-streptolysin O titer was elevated and transthoracic echocardiogram revealed poor coaptation of aortic valve leaflets with no evidence of vegetation. Histopathology revealed diffuse inflammation, reactive fibroblasts, thrombus and disrupted wall, with no microorganism isolated. Currently, the clinical diagnosis of IMA is based on documentation of aneurysm by angiography in the presence of predisposing infection, which is found to be incomplete, general, and non-discriminatory. Hence, Kannoth, et.al, proposed a scoring system based on the presence of specific clinical and radiographic characteristics, where patient was categorized as clinically definite IMA.

Identification of angiographic features of mycotic aneurysm in cerebral imaging is essential in arriving at proper and early diagnosis, resulting in better patient outcomes. Angiographic features which set IMA from other types of aneurysms include peripheral position, uneven outline, fusiform shape, multiplicity, and poorly defined neck. Currently, this is the first case reported in the Philippines involving intracranial mycotic aneurysms of both anterior and posterior vasculatures with subsequent rupture.

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Tailored Cognitive Rehabilitation For Post Stroke Reading Deficits

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Background Post-stroke reading deficits, commonly referred to as alexia, significantly impact a patient`s quality of life and cognitive function. Tailored cognitive rehabilitation strategies aim to address these specific deficits by customizing interventions to meet individual needs. Understanding the effectiveness of such targeted approaches can lead to improved outcomes for stroke survivors experiencing reading difficulties. Aims and Objectives To develop and implement tailored cognitive rehabilitation programs designed specifically for patients with post-stroke reading deficits. (2) To assess the effectiveness of personalized interventions in enhancing reading abilities and overall cognitive function.(3) To identify the underlying cognitive processes involved in reading and how they are affected by stroke. Methods A cohort of stroke patients with identified reading deficits underwent comprehensive assessments to determine their specific challenges. Tailored rehabilitation programs were designed, incorporating various techniques such as phonological training, visual scanning exercises, and contextual reading strategies. Progress will be measured using standardized reading assessments over multiple sessions. Results A total of 70 participants with post-stroke reading deficits were identified. Of these 20 had persistent deficits and 5 went through intensive tailored rehabilitation. All patients showed improvement in reading and language function at 3 months follow up. Discussion This study contributes to the understanding of Tailored cognitive rehabilitation for post-stroke reading deficits involving structured reading exercises and functional reading tasks to reinforce neural pathways and boost confidence, ultimately enhancing the patient’s overall quality of life.

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Association of body composition indices with cardiovascular outcomes: a nationwide cohort study

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Objectives: We aimed to investigate the association between body composition and cardiovascular outcomes according to BMI categories in the Korean general population.

Methods: A total of 2,604,401 participants were enrolled in this nationwide cohort study using the National Health Insurance Service-Health Checkup data set. Predicted lean BMI (pLBMI), body fat mass index (pBFMI), and appendicular skeletal muscle mass index (pASMMI) were calculated using validated anthropometric prediction equations. A multivariable time-dependent Cox regression analysis was conducted to assess the association with cardiovascular outcomes. The results were presented with adjusted hazard ratios (HRs) with 95% confidence intervals (CIs), considering BMI categories (BMI 18.5, BMI 18.5-24.9, BMI 25-29.9, and BMI ≥ 30).

Results: Higher pLBMI and pASMMI were correlated with a reduced risk of composite cardiovascular outcomes. For pLBMI, HR was 0.910 (95% CI: 0.908, 0.913, P 0.001) for males and 0.905 (95% CI: 0.899, 0.910, P 0.001) for females. For pASMMI, HR was 0.825 (95% CI: 0.820, 0.829, P0.001) for males and 0.788 (95% CI: 0.777, 0.800, P0.001) for females. Conversely, a higher pBFMI was associated with an increased risk, with HR of 1.082 (95% CI: 1.071, 1.093, P0.001) for males and 1.181 (95% CI: 1.170, 1.192, P0.001) for females. Subgroup analysis based on BMI categories revealed no significant risk association for pBFMI in the BMI

Conclusions: Our results highlight the value of pLBMI, pBFMI, and pASMMI as variables for assessing risk of composite cardiovascular outcomes. The significance of indicators may vary depending on BMI categories.

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Vasculitic Stroke in Polyarteritis Nodosa – A Case Report

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Polyarteritis nodosa (PAN) is a rare autoimmune vasculitis characterized by systemic inflammation of medium-sized arteries, leading to diverse clinical manifestations. We present a challenging case of a vasculitic stroke in a patient diagnosed with PAN. A 57-year-old male with a history of PAN presented with sudden-onset no verbal output and right sided weakness. Neuroimaging revealed an acute ischemic stroke involving left frontal lobe, the corona radiata and left insula. Laboratory investigations, including serological markers, supported the diagnosis of active PAN with central nervous system involvement. The patient was promptly initiated on high-dose corticosteroids, leading to a gradual improvement in neurological deficits over several days.

This case underscores the importance of considering vasculitis, particularly PAN, in the differential diagnosis of strokes, especially when multiple vascular territories are affected. Timely recognition and aggressive immunosuppressive treatment are crucial in managing vasculitic strokes associated with PAN, aiming to prevent further neurological complications and enhance overall patient outcomes. This report contributes to the expanding knowledge on the diverse neurological manifestations of PAN, emphasizing the need for multidisciplinary collaboration between rheumatologists and neurologists for accurate diagnosis and optimal management of this complex condition.

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Post-stroke Care Planning: Bridging Shared Concerns and Diverging Needs of Stroke Survivors and Caregivers

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Background & Objectives

Ischemic stroke has lasting impacts on both stroke survivors and their families. To support their adaptation better, tailored care plans are needed to address the needs of both patients and caregivers. This study aimed to evaluate the shared and different needs of ischemic stroke patients and their caregivers.

Method

A cross-sectional, qualitative survey was conducted with acute ischemic stroke patients (modified Rankin Scale =2) and their caregivers. A total of 255 patients and 78 caregivers participated. In-depth interviews were undergone during admission, and at four time points up to 12 months post-discharge. Participants were asked to identify their top concerns across three domains: subjective concerns, health and medical needs, and social welfare services, using single- and multiple-choice formats.

Results

There were shared priorities and differences between patients and caregivers. While the top two ranked need were consistent between patients and caregivers across all three categories, the third ranked need differed, highlighting a discrepancy in priorities. Subjective concerns differed significantly (p0.001); patients were more preoccupied with economic burdens and stroke recurrence, whereas caregivers focused on caregiving responsibilities. Other distinctions included health and medical items (p=0.065) and social welfare services (p=0.08).

Conclusion

This survey highlights areas of overlap and divergence that must be addressed in care planning after stroke. The findings emphasize the importance of addressing overlooked areas. Future community linkage programs should integrate the shared and differing needs of patients and caregivers to support recovery and quality of life.

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Contrast-Enhanced Ultrasound for Post-Stenting Carotid Artery Evaluations: Visualizing Neovascularization and Advancing Restenosis Insights

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Background: Carotid artery stenting (CAS) is an alternative treatment for carotid artery stenosis. Traditional assessments after stenting rely on angiography and Doppler ultrasound. This study explores the potential of contrast-enhanced ultrasound (CEUS) to improve diagnostic accuracy and provide insights into neointima and atherosclerotic plaques in restenosis.

Methods: Five patients with carotid artery restenosis, who regularly attended follow-ups and were on antiplatelet agents and statin, underwent CEUS using Sonovue®. CEUS allowed visualization of the stented segment from the the proximal neointima to the restenosis region, including the presence of neovascularization.

Results: Three patients underwent stenting for symptomatic and two for asymptomatic stenosis, with an average follow-up period of 4.4 years. Intense neovascularization was detected in at least one region of the neointima or plaque in all patients. Three patients showed neovascularization in both areas, while two depicted it in one area. CEUS led to the reclassification of stenosis severity in two patients, shifting from mild to moderate.

Conclusion: CEUS enhances post-stenting evaluations by providing detailed visualization of vascular integrity, particularly in carotid artery restenosis. The detection of intense neovascularization within neointima or restenosis areas highlights the potential role of CEUS in unveiling the pathophysiological mechanism and refining assessments of post-stenting complications.

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Unilateral paramedian midbrain infarct with dissociation between subjective visual vertical and ocular tilt reaction: A case report

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Objective:
This case report describes a rare dissociation between subjective visual vertical (SVV) and ocular tilt reaction (OTR) in a patient with right paramedian midbrain infarct, accompanied by features of Parinaud syndrome. The findings provide insights into the pathophysiology of vestibular and oculomotor pathway integration.
Methods:
A 20-year-old female presented with sudden-onset diplopia and dizziness. Neurological examination revealed vertical gaze limitation, convergence-retraction nystagmus, and leftward OTR. Imaging studies, including diffusion-weighted MRI, confirmed an acute cerebral infarction in the right paramedian midbrain. The visual vertical test demonstrated a rightward deviation, contrasting with the leftward OTR, indicating a directional dissociation.
Interpretation:
OTR and SVV abnormalities are sensitive markers in brainstem lesions and typically deviate in the same direction, reflecting dysfunction of tonic bilateral vestibular inputs stabilizing the eyes and head in roll plane. In this case, the dissociation may result from selective involvement of the ipsilateral vestibulothalamic tract or ascending Deiter's tract lesions.
Conclusion:
This case highlights the importance of integrating SVV and OTR findings for accurate diagnosis of midbrain lesions. Recognizing such dissociations enhances understanding of vestibular and oculomotor interactions and informs targeted rehabilitation strategies. Further studies are needed to clarify these mechanisms and improve diagnostic accuracy in midbrain infarct presentations.

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Retrospective Cohort Study on the Impact of Anesthesia Type on TICI outcomes and Clinical Success in Mechanical Thrombectomy for Acute Ischemic Stroke: Our Experience

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The choice of anesthesia during thrombectomy for acute ischemic stroke may influence procedural and clinical outcomes. This study investigates the association between anesthesia type, NIHSS scores, and reperfusion success (TICI scores) to optimize perioperative strategies.

Methods: A retrospective cohort study of 99 patients who underwent thrombectomy between 2022 and 2024 was assessed. Sociodemographic data, NIHSS and GCS scores at admission, post-procedure, and discharge, anesthesia type, complications and mortality were analyzed. Statistical tests included Chi-square, Fisher's exact test, Student's t-test, ANOVA, logistic regression, with significance set at $p \leq 0.05$.

Results: Among the 99 patients, 64.6% were male, with a mean age of 65.1 years (range: 38–84). The largest proportion of patients (61.6%) belonged to the 50–70 age group. Sedation was the most commonly employed anesthesia method (64.4%), followed by general (31.1%) and local anesthesia (4.4%). Sedation was associated with a high rate of successful reperfusion (TICI 2b/3). Successful reperfusion (TICI 2b/3) had higher median NIHSS scores at admission (15.0) compared to those with unsuccessful reperfusion (13.0). Significant improvements in NIHSS scores (14.88 to 8.32, p0.01) and GCS scores (13.57 to 14.64, p0.01) were observed. Complications occurred in 32.6% of cases, and mortality was 7%. Significant independent predictors of mortality included NIHSS-post TE (OR=1.33, p=0.01) and perioperative complications (OR=9.24, p=0.02).

Conclusion: Sedation developed as the predominant anesthesia method with favorable outcomes, while successful reperfusion (TICI 2b/3) was associated with improved clinical outcomes across varying stroke severities. Although anesthesia type did not directly affect reperfusion success, tailored perioperative strategies are critical for optimizing outcomes.

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Successful Management of a Free-Floating Thrombus in the Internal Carotid Artery Using a Direct Thrombin Inhibitor: A Case Report

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Free-floating thrombus (FFT) of the internal carotid artery (ICA) is a rare finding and an uncommon cause of ischemic stroke. Due to the limited number of reported cases and the absence of randomized clinical trials, there is no established consensus regarding the optimal management of carotid FFTs. This report describes the successful resolution of a carotid FFT using a direct thrombin inhibitor in an elderly patient with moderate stenosis.

A 90-year-old male, under regular outpatient follow-up for asymptomatic 80% carotid artery stenosis, was incidentally found to have an FFT during a routine carotid ultrasound. The patient exhibited no neurological deficits on examination and had not previously undergone carotid intervention. He was admitted for close observation and initiated on anticoagulation therapy with the direct thrombin inhibitor, argatroban. By the third day of argatroban therapy, the FFT size had decreased by approximately 50%. After five days, argatroban was transitioned to edoxaban 30 mg daily. A follow-up ultrasound two weeks later demonstrated a further 90% reduction in FFT size Unlike heparin, argatroban does not necessitate routine blood monitoring and offers a favorable safety profile regarding bleeding complications, making it a suitable alternative for acute management of FFTs. This report adds to the limited literature on carotid FFT management and underscores the role of direct thrombin inhibitors, such as argatroban, as a safe and effective treatment option for acute cases.

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Baicalin Protects Neurons from Oxidative Stress and Apoptosis Induced by Glutamate Excitotoxicity in HT-22 Cells

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Baicalin, a flavonoid isolated from Scutellaria baicalensis, has anti-inflammatory, antioxidant, and neuroprotective effects. Glutamate is a representative substance that damages nerve cells by inducing excitotoxicity. We investigated the anti-oxidant and anti-apoptotic effects of baicalin on glutamate-exposed neuronal cells. Mouse hippocampal neuronal cell line (HT-22) were cultured in a general manner, glutamate (5 mM) and/or baicalin (10, 30, 50 uM) were treated on the cells. Baicalin was administered 1 hr before glutamate treatment, and cells were collected 24 hr after glutamate. Reactive oxygen species (ROS) and lipid peroxidation (LPO) analyses were performed to determine the oxidative stress. Western blot and immunocytochemical staining were performed to investigate the expression of bcl-2, bax, and caspase-3. Glutamate induced severe neuronal damage including condensation of the cell shape, baicalin treatment attenuates these morphological changes. Baicalin treatment ameliorates the decrease in cell viability due to glutamate toxicity. Baicalin attenuated glutamate-induced increase of ROS and LPO, and the effect of baicalin on these results was dose-dependent. Glutamate exposure decreased bcl-2 expression and increased bax expression, and baicalin treatment attenuated these changes induced by glutamate. The ratio of bcl-2 to bax was decreased in glutamate exposure, and baicalin prevented this reduction. Baicalin treatment also ameliorated the glutamate toxicity-induced increase in caspase-3. We clearly confirmed that baicalin performs antioxidant and anti-apoptotic functions against glutamate toxicity in neurons. In conclusion, these results suggest that baicalin exerts neuroprotective effects on glutamate toxicity by preventing oxidative stress and inhibiting the apoptotic pathway.

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Cough-Induced Paresthesia Unveiled Cardioembolic Stroke and Septal Aneurysm

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A 61-year-old female was evaluated in the Emergency Department due to transient vision loss in the right eye, following administration of biological therapy for rheumatoid arthritis. Urgent neuroimaging showed no pathological findings, but further investigations were recommended.

Approximately a month later, the patient presented with brief numbness on the left side of the face and the left arm, which occurred during a coughing episode. Neurological examination revealed hypoesthesia on the left side of the nose. Interestingly, the symptoms initially occurred a few days prior to the examination, once again during coughing. A magnetic resonance imaging (MRI) of the brain detected multiple lacunar ischemic strokes in the right hemisphere which were consistent with embolic events, prompting admission to the Neurology Clinic.

Additional diagnostic workup ruled out cerebral aneurysms, significant stenosis, epileptiform abnormalities, antiphospholipid and paraneoplastic syndrome. In order to assess possible cardioembolism, heart echocardiography with Bubble study was performed, suggesting atrial septal aneurysm (ASA), with a potential minor defect and a right-to-left shunt. Finally, transesophageal echocardiogram (TEE) confirmed ASA presence and fossa ovalis duplication, without evidence of a patent foramen ovale. However, the patient was not able to tolerate the complete study, which prevented the Valsalva maneuver.

ASA is widely recognized for its association with an increased risk of adverse cerebrovascular events. Although the diagnostic Valsalva maneuver was not completed, the cough, acting as a natural mimic of the Valsalva maneuver, probably induced intrathoracic pressure changes, which may have triggered a cardioembolic stroke. Based on the findings, anticoagulant therapy was initiated.

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An Unusual Stroke Mimic: A case report

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Background

Ischemic stroke requires rapid assessment due to significant morbidity and mortality. 20% of suspected stroke admissions are mimics. Pneumococcal meningoencephalitis is a rare stroke mimic, with four cases reported.

Case:

A 58-year-old female teacher with obesity and anxiety was brought to hospital with sudden-onset inability to speak, right-sided face/arm weakness, and vomiting, witnessed by her class. Examination revealed right-sided facial droop, GCS 9 and NIHSS 12. Initial history was obtained from paramedics/witnesses due to reduced GCS and absence of next of kin. CT head and CTA were normal. She received IV thrombolysis.

However, she subsequently became febrile and developed paroxysmal atrial fibrillation (PAF). Broad-spectrum antibiotics were started while awaiting blood cultures, which, along with a CSF culture from a delayed lumbar puncture, grew Streptococcus pneumoniae.

The patient's GCS gradually improved, her right-sided weakness resolved, but expressive dysphasia persisted. MRI head showed no acute infarction but supported a diagnosis of bacterial meningoencephalitis. Once able to give history, she reported "as if she had a cold" the morning before admission. Recovery was lengthy but uneventful. CT skull base/IAM revealed a focal erosion/deficiency in the left tegmen, likely the infection route.

She was discharged after 3 weeks of IV antibiotics and rehab and remains on long-term anticoagulation for primary prevention of PAF-related cardioembolism.

Conclusion

Although rare, pneumococcal meningoencephalitis should be considered in suspected ischemic stroke evaluations. Assessing risk factors is essential but not always feasible. Delays in lumbar puncture due to IV thrombolysis should be factored into recanalisation decisions.

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Safer and More Effective Thrombolytics: Brnoteplase Through Rational Mutagenesis.

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Intravenous thrombolytics have simple administration and are a relatively inexpensive treatment for acute ischemic stroke. However, intravenous thrombolysis achieves a limited recanalization rate (10-40% depending on clot size) and poses a risk of symptomatic intracerebral haemorrhage. In the STROKE Brno consortium (www.strokebrno.cz), we designed novel variants of alteplase using structural bioinformatics, enzyme mining, ancestral sequence reconstruction, and combining favourable mutations from literature. We tested their plasminogen activation, fibrinolysis, and inhibition resistance ability using in vitro and in vivo studies. Selected variants were tested on biophysical arterial occlusion flow and in vivo rat stroke models. The mutants show 400% increased inhibition resistance compared to alteplase, 80-fold higher fibrin selectivity, and up to 400% lower fibrin binding. The most promising mutant, Brnoteplase, shows improved clot penetration and does not exhibit a concentration/efficacy plateau, contrary to alteplase. In the rat model, 2.5 mg/kg Brnoteplase bolus has shown an 87% recanalization rate, compared to 68% in 0.25 mg/kg tenecteplase bolus and 21% in alteplase 0.9 mg/kg bolus + constant rate infusion, while showing 15% occurrence of parenchymal haemorrhage grade 1, compared to 21% in tenecteplase and 35% in alteplase. These favourable properties make Brnoteplase a good candidate for development and clinical use. This project was supported by the project National Institute for Neurology Research (LX22NPO5107 MEYS): Financed by European Union – Next Generation EU. This project was also supported by the European Union’s Horizon 2020 Research and Innovation Programme under grant agreements Nos. 857560 and 101136607.

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E-Poster

Stroke

Primary Antiphospholipid Syndrome as a Cause of Cardioembolic Stroke – Therapeutic Difficulties in Real-life Settings

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Background: Antiphospholipid syndrome (APS) is an autoimmune thrombophilia that can result in ischemic stroke. Recent research suggests that direct oral anticoagulants (DOAC), such as rivaroxaban, and apixaban, are ineffective for the secondary prophylaxis of APS-related stroke, vitamin K antagonists (VKA), such as acenocoumarol, that require periodic INR-based dose adjustments, remaining the recommended approach.
Case presentation: We present the case of a 56-year-old male, with classical modifiable vascular risk factors, admitted to our department for an acute ischemic stroke in the superficial territory of the left middle cerebral artery. The echocardiography revealed a large mobile thrombus in the left ventricle, prompting anticoagulant treatment. Lupus anticoagulant, anticardiolipin antibodies, and anti beta2 glycoprotein I antibodies were intensely positive. The patient had difficult access to INR testing and refused acenocoumarol treatment, so at discharge we decided on secondary prophylaxis with rivaroxaban. After 3 months, the patient had a mild exacerbation of the sequelar right hemiparesis. The brain MRI found several small acute ischemic lesions in the superficial territories of both middle cerebral arteries. The APS workup was once again intensely positive. Acenocoumarol was started, but despite our best efforts, the patient was unable to comply with the INR testing. After 2 months the acenocoumarol treatment was replaced with apixaban and low-dose aspirin. No further clinical events suggestive of stroke occurred over the next 6 months.
Conclusion: Further studies are needed to define better the role of DOAC in patients with APS-related stroke who are unable to use VKA.

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Stroke

Ischemic stroke in course of dissection of the brachiocephalic trunk.

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A 40-year-old patient was transferred to the Neurology Clinic for mechanical thrombectomy.

The patient experienced sudden weakening of the muscle strength of the left limbs and speech disorders of the slurred speech type on the day of admission.

CT angiography revealed obstruction of the brachiocephalic trunk and RMCA.

The diagnostics were extended to include an MRI of the head.

A neurological examination revealed severe left-sided hemiparesis, dysarthria. NIHSS 12 points.

The patient was qualified for the procedure according to the DAWN protocol.

In the interview: no chronic treatment, nicotine addiction.

The procedure was performed by puncture into the right femoral artery. Braciocephalic trunk obstruction was demonstrated - it was impossible to pass the guidewire through the obstruction. An attempt was made to puncture the radial artery under ultrasound guidance. The right brachial artery was punctured under ultrasound guidance. Obstruction of the M1RMCA was confirmed - the artery was unblocked. Aspiration from the brachiocephalic trunk was performed - in the control angiography it was unblocked.

During the patient`s sudden movement the sheath from the brachial artery slipped out.

After the procedure was completed, symptoms of acute ischemia of the right upper limb were observed.

A control CT scan of the head revealed a hypodense area of 34mm x 15mm in the deep structures on the right side, angio CT scan revealed the brachiocephalic trunk with features of short dissection with a narrow flow channel.

After angiological and anesthesiological consultation, the patient was qualified for brachial artery repair and brachiocephalic trunk stenting.