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Journal of Vascular and Interventional Neurology

OFFICIAL JOURNAL OF ZEENAT QURESHI STROKE INSTITUTE

Journal of Vascular & Interventional Neurology

Official Journal of ZQSI and MENA-SINO

Volume 17 | Supplement 1 | January 2026

Abstracts from the 10th MENA-SINO Conference

Complete Scientific Program

Bridging Disciplines, Advancing Neurointervention and Stroke Care

Jeddah, Kingdom of Saudi Arabia | December 11–13, 2025

Note to Authors: Abstracts appearing in this supplement represent the scientific program of the 10th MENA-SINO Conference. All references are provided as supporting literature; authors are responsible for verification and accuracy. All conflicts of interest should be disclosed per JVIN and ICMJE guidelines. This supplement was prepared in accordance with the AMA Manual of Style, 11th Edition.

Selected Abbreviations: AVM, arteriovenous malformation; CAS, carotid artery stenting; CEA, carotid endarterectomy; CSC, comprehensive stroke center; CT, computed tomography; CTP, CT perfusion; DAVF, dural arteriovenous fistula; DWI, diffusion-weighted imaging; EVT, endovascular therapy; ICAD, intracranial atherosclerotic disease; IIH, idiopathic intracranial hypertension; IV, intravenous; LVO, large vessel occlusion; MeVO, medium vessel occlusion; MRI, magnetic resonance imaging; MSU, mobile stroke unit; PFO, patent foramen ovale; SAH, subarachnoid hemorrhage; SRS, stereotactic radiosurgery; TIA, transient ischemic attack; TNK, tenecteplase; tPA, tissue plasminogen activator; TVE, transvenous embolization; WEB, Woven EndoBridge.

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DAY 2: FRIDAY, DECEMBER 12, 2025

Session 7: AVMs and Venous Frontiers: Challenging Old and New Dogma

Moderators: *Rene Chapot, Zyiad Aloraini*

37. Case Kick-Off: An Unruptured Spetzler-Martin Grade IV AVM in an Eloquent Brain Region

Zyiad Aloraini | 8:00–8:05

Presentation of a high-grade, unruptured arteriovenous malformation (AVM) in an eloquent area, illustrating the clinical equipoise between conservative management and the cumulative risks associated with aggressive multimodal intervention in a complex lesion with deep venous drainage.

References

1. Spetzler RF, Martin NA. A proposed grading system for arteriovenous malformations. J Neurosurg. 1986;65(4):476-483.
2. Lawton MT, Kim H, McCulloch CE, Mikhak B, Young WL. A supplementary grading scale for selecting patients with brain arteriovenous malformations for surgery. Neurosurgery. 2010;66(4):702-713.

38. Debate 1 [Position: Yes] — High-Grade Unruptured Brain AVMs: Do Real-World Outcomes Challenge ARUBA's Conservative Management?

Michel Mawad | 8:05–8:15

Arguing against ARUBA's conclusions, this presentation leverages real-world registry data to demonstrate that modern transvenous embolization techniques and super-compliant microcatheters have substantially lowered procedural morbidity, making intervention a viable and safe option for highly selected high-grade AVMs in experienced centers.

References

1. Mohr JP, Parides MK, Stapf C, et al. Medical management with or without interventional therapy for unruptured brain arteriovenous malformations (ARUBA): a multicentre, non-blinded, randomised trial. Lancet. 2014;383(9917):614-621.
2. Rutledge WC, Abla AA, Nelson J, Jonzzon S, Halbach V, Lawton MT. Treatment and outcomes of ARUBA-eligible patients with unruptured brain arteriovenous malformations at a single institution. Neurosurg Focus. 2014;37(3):E8.

39. Debate 1 [Position: No] — High-Grade Unruptured Brain AVMs: Do Real-World Outcomes Challenge ARUBA's Conservative Management?

Bassem Sheikh | 8:15–8:25

Defending conservative management, this abstract maintains that the natural history of unruptured AVMs still favors observation over intervention. Aggressive therapy in Spetzler-Martin Grade IV and V lesions carries a cumulative procedural morbidity that often exceeds the natural history rupture risk, even when accounting for technological advancements in embolization.

References

1. Mohr JP, Parides MK, Stapf C, et al. Medical management with or without interventional therapy for unruptured brain arteriovenous malformations (ARUBA). Lancet. 2014;383(9917):614-621.
2. Al-Shahi Salman R, White PM, Counsell CE, et al. Outcome after conservative management or intervention for unruptured brain arteriovenous malformations. JAMA. 2014;311(16):1661-1669.

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40. Case Kick-Off: A Ruptured Spetzler-Martin Grade III AVM with Deep Drainage Requiring Multimodal Management

Zyiad Aloraini | 8:25–8:30

A case study of a ruptured Grade III AVM with deep venous drainage in a young patient, highlighting the urgency of definitive treatment to prevent rebleeding and establishing the rationale for a structured debate on the optimal sequencing of endovascular embolization and surgical resection.

References

1. Stapf C, Mast H, Sciacca RR, et al. Predictors of hemorrhage in patients with untreated brain arteriovenous malformation. Neurology. 2006;66(9):1350-1355.
2. Brown RD, Flemming KD, Meyer FB, Cloft HJ, Pollock BE, Link ML. Natural history, evaluation, and management of intracranial vascular malformations. Mayo Clin Proc. 2005;80(2):269-281.

41. Debate 2 [Position: Hybrid] — AVM Treatment in Expert Hands: Hybrid Approach versus Single-Modality Strategy

Tamer Hassan | 8:30–8:40

Advocating for a hybrid multimodal approach, this presentation argues that pre-operative staged embolization significantly reduces intraoperative blood loss and operative time. Coordinated multidisciplinary treatment—combining embolization followed by microsurgical resection—provides the highest rates of complete obliteration for complex AVMs with multiple feeding pedicles.

References

1. Hartmann A, Pile-Spellman J, Stapf C, et al. Risk of endovascular treatment of brain arteriovenous malformations. Stroke. 2002;33(7):1816-1820.
2. Potts MB, Zucker BE, Sheehan JP, et al. Combined microsurgical and radiosurgical treatment of brain arteriovenous malformations. J Neurosurg. 2014;121(4):895-904.

42. Debate 2 [Position: Single-Modality] — AVM Treatment in Expert Hands: Hybrid Approach versus Single-Modality Strategy

Rene Chapot | 8:40–8:50

Arguing for single-modality treatment, this abstract posits that in highly experienced hands, definitive transvenous embolization or primary microsurgery alone minimizes the cumulative risks of staged procedures, avoiding compounded anesthetic exposures, additive embolic complications, and the surgical complexity introduced by prior embolization.

References

1. Saatci I, Geyik S, Yavuz K, Cekirge HS. Endovascular treatment of brain arteriovenous malformations with prolonged intranidal Onyx injection technique: long-term results in 350 consecutive patients with completed endovascular treatment course. J Neurosurg. 2011;115(1):78-88.
2. Chapot R, Stracke P, Velasco A, et al. The pressure cooker technique for the treatment of brain AVMs. J Neuroradiol. 2014;41(2):87-91.

43. Natural History of Brain Arteriovenous Malformations

Ali Alaraj | 8:50–9:00

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A comprehensive review of the epidemiological data regarding the natural history of brain AVMs. This lecture details the annual rupture risk (1%–3%), risk factors for hemorrhage including deep venous drainage and associated intranidal aneurysms, and the clinical implications of this data for long-term patient counseling and shared decision-making.

References

1. Ondra SL, Troupp H, George ED, Schwab K. The natural history of symptomatic arteriovenous malformations of the brain: a 24-year follow-up assessment. J Neurosurg. 1990;73(3):387-391.
2. Hernesniemi JA, Dashti R, Juvela S, et al. Natural history of brain arteriovenous malformations: a long-term follow-up study of risk of hemorrhage in 238 patients. Neurosurgery. 2008;63(5):823-831.

Session 8: Navigating Complications in Venous Sinus Stenting

Moderators: *Shazam Hussien, Hosam Al-Jehani*

44. Case Presentation 1: In-Stent Stenosis Following Venous Sinus Stenting for Idiopathic Intracranial Hypertension

Hosam Al-Jehani | 9:15–9:25

A clinical case detailing a patient presenting with recurrent papilledema 6 months after venous sinus stenting for idiopathic intracranial hypertension (IIH). The presentation discusses the pathophysiology of in-stent stenosis in the venous system and available re-intervention strategies, including balloon angioplasty and tandem stenting.

References

1. Dinkin MJ, Patsalides A. Venous sinus stenting for idiopathic intracranial hypertension: results of a prospective trial. J Neuroophthalmol. 2017;37(2):113-121.
2. Nicholson P, Brinjikji W, Radovanovic I, et al. Venous sinus stenting for idiopathic intracranial hypertension: a systematic review and meta-analysis. J Neurointerv Surg. 2019;11(3):304-306.

45. Case Presentation 2: Refractory Headache with Rapidly Progressive Fulminant Papilledema in a Young Woman

Shazam Hussein | 9:25–9:35

This case explores the emergent management of fulminant IIH with rapidly deteriorating visual acuity. The debate centers on rapid deployment of venous sinus stenting versus traditional CSF diversion (ventriculoperitoneal or lumboperitoneal shunting) to preserve vision in a time-critical clinical scenario requiring immediate intervention.

References

1. Bussière M, Falero R, Nicolle D, Bhatt DL, Pelz DM, Lownie SP. Unilateral transverse sinus stenting of patients with idiopathic intracranial hypertension. AJNR Am J Neuroradiol. 2010;31(4):645-650.
2. Puffer RC, Mustafa W, Lanzino G. Venous sinus stenting for idiopathic intracranial hypertension: a review of the literature. J Neurointerv Surg. 2013;5(5):438-440.

46. Case Presentation 3: Acute Venous Sinus Thrombosis After Venous Sinus Stenting for IIH

Abdullah Tawakel | 9:35–9:45

A complex case of acute venous sinus thrombosis occurring as a complication of stenting for IIH. The presentation evaluates the comparative efficacy of systemic anticoagulation prophylaxis versus acute rescue interventions including catheter-directed thrombolysis and mechanical thrombectomy in the cerebral venous system.

References
1. Ferro JM, Bousser MG, Canhão P, et al. European Stroke Organization guideline for the diagnosis and treatment of cerebral venous thrombosis – endorsed by the European Academy of Neurology. Eur J Neurol. 2017;24(10):1203-1213.
2. Coutinho JM, Zuurbier SM, Bousser MG, et al. Effect of endovascular treatment with anticoagulation in patients with severe cerebral venous thrombosis. Stroke. 2020;51(6):1855-1863.

Session 9: Reperfusion Frontiers: From Thrombolysis to Thrombectomy

Moderators: *Adnan Qureshi, Mostafa Mahmoud*

47. Case Kick-Off: A Challenging Large Vessel Occlusion

Mostafa Mahmoud | 10:30–10:35

Presentation of a complex large vessel occlusion involving tandem lesions and tortuous cervical anatomy, illustrating the technical and pharmacological decision-making required for successful reperfusion in a patient presenting within the standard treatment window.

References
1. Goyal M, Menon BK, van Zwam WH, et al. Endovascular thrombectomy after large-vessel ischaemic stroke. Lancet. 2016;387(10029):1723-1731.
2. Turc G, Bhogal P, Fischer U, et al. European Stroke Organisation (ESO)–European Society for Minimally Invasive Neurological Therapy (ESMINT) guidelines on mechanical thrombectomy in acute ischaemic stroke. J Neurointerv Surg. 2019;11(6):535-538.

48. Debate 1 [Position: Yes] — The Role of TNK/tPA in Special Circumstances (Minor Stroke, CRAO, etc.)

Mohammad Almikhlafi | 10:35–10:45

Advocating for thrombolytics in special circumstances, this presentation argues that tenecteplase (TNK) offers significant benefit in central retinal artery occlusion (CRAO) presenting within the treatment window and in disabling minor strokes, providing a critical pharmacological option where mechanical thrombectomy is anatomically unfeasible.

References
1. Mac Grory B, Schrag M, Biousse V, et al. Management of central retinal artery occlusion: a scientific statement from the American Heart Association. Stroke. 2021;52(6):e285-e292.
2. Hakim A, Bhatt N, Kasner SE. Tenecteplase for ischemic stroke. Stroke. 2021;52(3):1087-1090.

49. Debate 1 [Position: No] — The Role of TNK/tPA in Special Circumstances (Minor Stroke, CRAO, etc.)

Mohammad Hatou | 10:45–10:55

Cautioning against thrombolysis in these scenarios, this abstract highlights the paucity of robust randomized controlled trial data. The risk of symptomatic intracranial hemorrhage often outweighs the unproven benefits in non-disabling minor strokes and delayed CRAO presentations, necessitating individualized risk-benefit assessment.

References
1. Khatri P, Kleindorfer DO, Devlin T, et al. Effect of alteplase vs aspirin on functional outcome for patients with acute ischemic stroke and minor nondisabling neurologic deficits (PRISMS): a randomized clinical trial. JAMA. 2018;320(2):156-166.

2. Johansson MC, Mazya MV, Fastner C, et al. Safety of systemic thrombolysis in patients with minor ischemic stroke. Stroke. 2018;49(11):2722-2727.

50. Debate 2 [Position: Yes] — Can We Extend the IV Thrombolysis Window Beyond 4.5 Hours?

Ziad Aljoundi | 10:55–11:05

Supporting the extension of the IV thrombolysis window, this presentation presents data from the EXTEND and WAKE-UP trials, demonstrating that advanced perfusion imaging and diffusion-FLAIR mismatch MRI can safely identify patients who derive benefit from thrombolysis administered up to 9 hours after onset or upon waking from sleep.

References

1. Ma H, Campbell BCV, Parsons MW, et al. Thrombolysis guided by perfusion imaging up to 9 hours after onset of stroke. N Engl J Med. 2019;380(19):1795-1803.
2. Thomalla G, Simonsen CZ, Boutitie F, et al. MRI-guided thrombolysis for stroke with unknown time of onset. N Engl J Med. 2018;379(7):611-622.

51. Debate 2 [Position: No] — Can We Extend the IV Thrombolysis Window Beyond 4.5 Hours?

Amal Alhashimi | 11:05–11:15

Arguing against routine extension of the thrombolysis window, this abstract emphasizes that mechanical thrombectomy is the definitive standard of care for late-window large vessel occlusions. Administering IV thrombolytics late in the time course carries a high risk of hemorrhagic transformation without meaningfully improving recanalization rates when compared with EVT alone.

References

1. Albers GW, Marks MP, Kemp S, et al. Thrombectomy for stroke at 6 to 16 hours with selection by perfusion imaging. N Engl J Med. 2018;378(8):708-718.
2. Saver JL, Goyal M, van der Lugt A, et al. Time to treatment with endovascular thrombectomy and outcomes from ischemic stroke. JAMA. 2016;316(12):1279-1288.

52. Debate 3 [Position: Yes] — Should EVT Be Offered to All Patients with LVO Regardless of Core Infarct Size?

Mohammed Almikhlafi | 11:15–11:25

Advocating for EVT in large core infarcts, this presentation cites outcomes from the SELECT2 and TENSION randomized trials. EVT in ischemic cores up to 150 mL significantly shifts the modified Rankin Scale distribution toward functional independence compared with medical management alone, without a prohibitive increase in symptomatic intracranial hemorrhage.

References

1. Sarraj A, Hassan AE, Abraham MG, et al. Trial of endovascular thrombectomy for large ischemic strokes. N Engl J Med. 2023;388(14):1259-1271.
2. Bendszus M, Fiehler J, Subtil F, et al. Endovascular thrombectomy for acute ischaemic stroke with established large infarct (TENSION). Lancet. 2023;401(10370):36-46.

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53. Debate 3 [Position: No] — Should EVT Be Offered to All Patients with LVO Regardless of Core Infarct Size?

Owais Alsrouji | 11:25–11:35

Cautioning against a treat-all approach, this presentation highlights that ultra-large ischemic cores (>150 mL) or those with extensive eloquent cortical involvement frequently result in futile recanalization and malignant brain edema. Strict patient selection criteria are necessary to avoid catastrophic reperfusion injuries and disproportionate resource utilization.

References

1. Nogueira RG, Haussen DC, Liebeskind DS, et al. Stroke imaging selection modality and endovascular therapy outcomes in the early and extended time windows. Stroke. 2019;50(2):465-468.
2. Huo X, Ma G, Tong X, et al. Trial of endovascular therapy for acute ischemic stroke with large infarct. N Engl J Med. 2023;388(14):1272-1283.

Session 10: Dural Arteriovenous Fistulas: Complex Anatomy, Complex Decisions

Moderators: *Marlise Dos Santos, Rene Chapot*

54. Case Kick-Off: A Patient with Pulsatile Tinnitus and a Complex DAVF Involving the Transverse-Sigmoid Junction

Marlise Dos Santos | 13:00–13:05

A clinical case of a symptomatic transverse-sigmoid dural arteriovenous fistula (DAVF), illustrating the diagnostic challenges associated with pulsatile tinnitus and the angiographic assessment required to identify high-risk cortical venous reflux that mandates urgent treatment.

References

1. Cognard C, Gobin YP, Pierot L, et al. Cerebral dural arteriovenous fistulas: clinical and angiographic correlation with a revised classification of venous drainage. Radiology. 1995;194(3):671-680.
2. Borden JA, Wu JK, Shucart WA. A proposed classification for spinal and cranial dural arteriovenous fistulous malformations and implications for treatment. J Neurosurg. 1995;82(2):166-179.

55. Advanced DAVF Classification and Treatment Planning

Marlise Dos Santos | 13:05–13:15

A detailed review of the Cognard and Borden classification systems for dural arteriovenous fistulas. The lecture emphasizes how the presence of cortical venous drainage dictates the urgency of treatment and guides the selection between transarterial, transvenous, or microsurgical approaches to achieve complete angiographic cure.

References

1. Cognard C, Gobin YP, Pierot L, et al. Cerebral dural arteriovenous fistulas. Radiology. 1995;194(3):671-680.
2. Davies MA, TerBrugge K, Willinsky R, Coyne T, Saleh J, Wallace MC. The validity of classification for the clinical presentation of intracranial dural arteriovenous fistulas. J Neurosurg. 1996;85(5):830-837.

56. CSF Fistulas and Spontaneous Intracranial Hypotension

Farid Aladham | 13:15–13:25

This presentation explores the intersection of neurovascular and CSF dynamics in spontaneous intracranial hypotension. Topics include the diagnostic role of digital subtraction myelography in identifying CSF-venous fistulas, and the application of novel endovascular embolization techniques targeting the fistula site to achieve durable symptom resolution.

References

1. Schievink WI. Spontaneous spinal cerebrospinal fluid leaks and intracranial hypotension. JAMA. 2006;295(19):2286-2296.
2. Mamlouk MD, Ochi RP, Jun P, Sedrak MF, Murty N, Glastonbury CM. Decubitus CT myelography for CSF-venous fistulas: a procedural approach. AJNR Am J Neuroradiol. 2021;42(1):32-36.

57. Debate [Position: Endovascular] — High-Risk DAVFs: Endovascular versus Surgical Approaches

Faisal Alghamdi | 13:25–13:35

Advocating for endovascular primacy, this abstract demonstrates that transarterial and transvenous embolization using modern liquid embolic agents (Onyx, Squid, Phil) achieves angiographic cure in the vast majority of high-risk DAVFs with acceptable morbidity, minimizing the need for open craniotomy and its associated surgical risks.

References

1. Signorelli F, Gory B, Maduri R, et al. Transarterial embolization of intracranial dural arteriovenous fistulas: a systematic review. J Neuroradiol. 2015;42(1):4-14.
2. Piippo A, Niemelä M, van Popta J, et al. Characteristics and long-term outcome of 251 patients with dural arteriovenous fistulas in a defined population. J Neurosurg. 2013;118(5):923-934.

58. Debate [Position: Surgical] — High-Risk DAVFs: Endovascular versus Surgical Approaches

Ali Alaraj | 13:35–13:45

Defending surgical approaches, this presentation highlights that for complex DAVFs involving the anterior cranial fossa or those with angiographically inaccessible venous drainage pouches, direct surgical disconnection of the draining vein remains the most definitive, rapid, and safe cure, avoiding the risks of non-target embolization inherent to endovascular approaches.

References

1. Lucas CP, de Oliveira E, Tedeschi H, Peace DA, Rhoton AL. Sinus skeletonization: a treatment for dural arteriovenous malformations of the tentorial apex. J Neurosurg. 1996;84(3):514-517.
2. Lawton MT, Sanchez-Mejia RO, Pham D, Tan J, Halbach VV. Tentorial dural arteriovenous fistulae: operative strategies and microsurgical results for six types. Neurosurgery. 2008;62(suppl 2):553-560.

59. Technology Showcase: Innovations Shaping the Future of Neurointervention

Adnan Siddiqui | 13:45–13:55

A forward-looking presentation on emerging technologies in the neurointervention suite. Topics include robotics in endovascular surgery, AI-assisted angiographic roadmap generation, next-generation bioresorbable neurovascular stents, and augmented reality navigation systems designed to enhance procedural precision and reduce operator radiation exposure.

References

1. Dmytriw AA, Cancelliere NM, Ospel J, et al. Emerging devices in neurointervention. Neurology. 2023;100(6):277-287.

2. Nicholson P, Bilocq A, Hilario A, et al. A narrative review on the future of endovascular neurointervention. Front Neurol. 2021;12:731009.

60. Technology Showcase: Contrarian Embolization Techniques

Riyadh Alokaili | 13:55–14:05

An exploration of unconventional embolization techniques for challenging vascular malformations. The lecture discusses the pressure-cooker technique, dual-lumen balloon microcatheters for hemostatic plug formation, and trans-osseous approaches for reaching previously considered untreatable vascular malformations in inaccessible locations.

References

1. Chapot R, Stracke P, Velasco A, et al. The pressure cooker technique for the treatment of brain AVMs. J Neuroradiol. 2014;41(2):87-91.
2. Lv X, Li Y, Jiang C, Wu Z. Dual microcatheter technique for embolization of cerebral arteriovenous malformations. Clin Neuroradiol. 2008;18(1):55-57.

Presidential Session: Presidential Keynote and Award Ceremony

61. Keynote Presentation: MENA-SINO Progress Report and Inaugural Handover of Presidency

Ossama Mansour | 14:20–15:00

A keynote address summarizing the organizational and scientific advancements of the MENA-SINO society over the past decade. The presentation highlights the establishment of regional collaborative registries, the expansion of neurointerventional fellowship training programs across the MENA region, and the strategic vision for the incoming presidency focused on standardizing and improving stroke care access in the Middle East and North Africa.

References

1. Mansour OY, Mursi M, Ghareeb M, et al. The Egyptian stroke registry: is current practice evidence based? Egypt J Neurol Psychiatry Neurosurg. 2022;58:37.
2. Feigin VL, Brainin M, Norrving B, et al. World Stroke Organization (WSO): Global Stroke Fact Sheet 2022. Int J Stroke. 2022;17(1):18-29.
3. El-Hajj M, Salameh P, Rachidi S, Hosseini H. The epidemiology of stroke in the Middle East and North Africa. J Stroke Cerebrovasc Dis. 2016;25(8):1873-1882.

Session 11: Building Bridges: Stroke System Development in MENA

Moderators: *Fawaz Al-Mufti, Riyadh Al-Okaili*

62. Regional Showcase: Saudi Arabia

Fahmi Alsinani | 15:45–15:55

An update on the Saudi national stroke registry. The presentation details the successful implementation of key performance indicator–driven stroke care pathways, the expansion of comprehensive stroke centers across major population centers, and the measurable impact of government-backed national health transformation initiatives on reducing stroke mortality.

References

1. Almekhlafi MA, Alsolami AT, Qari FA, et al. The impact of a stroke protocol on door-to-needle time in a Saudi tertiary hospital. Neurosciences (Riyadh). 2020;25(1):40-45.

2. Lindsay P, Norrving B, Sacco RL, et al. World Stroke Organization Global Stroke Services Guidelines and Action Plan. Int J Stroke. 2019;14(suppl 3):1-184.

63. Regional Showcase: Egypt

Ehab Shawky | 15:55–16:05

A review of stroke system development in Egypt. This lecture focuses on the challenges of resource allocation in a high-population-density setting, the success of the national stroke initiative in subsidizing thrombolytics at public facilities, and the rapid growth of neurointerventional training centers affiliated with major academic medical institutions.

References

1. Mansour OY, Mursi M, Ghareeb M, et al. The Egyptian stroke registry. Egypt J Neurol Psychiatry Neurosurg. 2022;58:37.
2. Wasay M, Khatri IA, Kaul S. Stroke in South Asian countries. Nat Rev Neurol. 2014;10(3):135-143.

64. Regional Showcase: Pakistan

Mohammed Wasay | 16:05–16:15

An analysis of the evolving stroke care landscape in Pakistan. The presentation highlights the high epidemiological burden of stroke in South Asia, the development of indigenous clinical practice guidelines, and grassroots efforts to establish primary stroke centers and thrombolysis-capable facilities in underserved rural provinces.

References

1. Wasay M, Khatri IA, Kaul S. Stroke in South Asian countries. Nat Rev Neurol. 2014;10(3):135-143.
2. Johnson W, Onuma O, Owolabi M, Sachdev S. Stroke: a global response is needed. Bull World Health Organ. 2016;94(9):634-634A.

65. Mission Thrombectomy: Perspectives and Progress

Fawaz Al-Mufti | 16:15–16:25

An overview of the global Mission: Thrombectomy initiative's impact in the MENA region. The lecture outlines actionable strategies to increase population access to endovascular therapy, overcome geographic and socioeconomic barriers, and advocate for health policy changes that reimburse neurointerventional procedures across diverse healthcare systems.

References

1. Fifi JT, Mocco J. Mission: Thrombectomy—tackling the problem of large vessel occlusion stroke in low- and middle-income countries. J Neurointerv Surg. 2017;9(6):623-626.
2. Feigin VL, Brainin M, Norrving B, et al. World Stroke Organization (WSO): Global Stroke Fact Sheet 2022. Int J Stroke. 2022;17(1):18-29.

66. WSO Mission and Perspectives

Jeyaraj Pandian | 16:25–16:35

A perspective from the World Stroke Organization (WSO). This presentation discusses the WSO certification process for stroke centers in the MENA region, global quality improvement initiatives, and the integration of regional epidemiological data into worldwide stroke burden models to drive evidence-informed policy advocacy.

References

1. Lindsay P, Norrving B, Sacco RL, et al. World Stroke Organization Global Stroke Services Guidelines and Action Plan. Int J Stroke. 2019;14(suppl 3):1-184.
2. Johnson W, Onuma O, Owolabi M, Sachdev S. Stroke: a global response is needed. Bull World Health Organ. 2016;94(9):634-634A.

Session 12: AVM Masterclass: From Bench to Bedside

Moderators: *Rene Chapot, Abdurrahman Alshami*

67. Case Presentation: A Complex Eloquent-Area AVM in a Young Patient

Riyadh Alokaili | 16:50–17:00

A case study of a young patient harboring a high-grade AVM in the motor cortex. The presentation outlines the multidisciplinary decision-making process, encompassing preoperative functional MRI and diffusion tensor tractography, and the rationale for staging embolization prior to stereotactic radiosurgery.

References

1. Spetzler RF, Martin NA. A proposed grading system for arteriovenous malformations. J Neurosurg. 1986;65(4):476-483.
2. Potts MB, Lau D, Abla AA, et al. Current surgical results with low-grade brain arteriovenous malformations. J Neurosurg. 2015;122(4):912-920.

68. Transvenous Embolization in Complex AVMs: What Is New and How Far Can We Go?

Rene Chapot | 17:00–17:10

An advanced masterclass on transvenous embolization (TVE) of brain AVMs. The lecture details the criteria for TVE suitability, catheterization techniques for navigating complex venous anatomy, the management of intraprocedural venous rupture, and the evolving boundaries of curative embolization as a definitive single-modality strategy.

References

1. Dmytriw AA, Goyal M, Parra-Farinas C, Rawal S, Neufeld EA, Lenck S. Transvenous embolization of cerebral arteriovenous malformations: a systematic review. Interv Neuroradiol. 2020;26(4):417-424.
2. Chapot R, Stracke P, Velasco A, et al. The pressure cooker technique for the treatment of brain AVMs. J Neuroradiol. 2014;41(2):87-91.

69. Role of Stereotactic Radiosurgery in AVM Management

Majed Alghamdi | 17:10–17:20

A review of the current indications for stereotactic radiosurgery (SRS) in AVM management. The presentation discusses dose fractionation planning, the latency period to angiographic obliteration, and the role of volume-staged or nidus-reducing embolization prior to Gamma Knife therapy for large-volume AVMs beyond the optimal radiosurgical target size.

References

1. Starke RM, Kano H, Ding D, et al. Stereotactic radiosurgery for unruptured intracranial arteriovenous malformations in the modern era. J Neurosurg. 2014;120(3):501-515.
2. Ding D, Starke RM, Kano H, et al. Radiosurgery for cerebral arteriovenous malformations in a randomized trial of unruptured brain arteriovenous malformations (ARUBA)-eligible patients. Stroke. 2016;47(2):342-349.

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70. Tips and Tricks: Advanced Techniques in Spinal DAVF Management

Nader Sourour | 17:20–17:30

Technical pearls for the endovascular treatment of spinal dural arteriovenous fistulas. This lecture covers the use of provocative testing with lidocaine to predict post-embolization neurological deficits, the selection of appropriate liquid embolic agents, and the importance of deep penetration into the proximal draining vein to achieve durable cure and prevent recurrence.

References

1. Kiyosue H, Matsumoto S, Hori Y, Okahara M, Tanoue S, Mori H. Embolization of spinal dural arteriovenous fistulas using N-butyl cyanoacrylate. Neuroradiology. 2015;57(1):65-78.
2. Gokhale S, Khan SA, McDonagh DL, Britz G. Comparison of surgical and endovascular approach in management of spinal dural arteriovenous fistulas. Surg Neurol Int. 2014;5:7.

71. Tips and Tricks: Posterior Fossa AVM Management

Sultan Alghatani | 17:30–17:40

Managing posterior fossa AVMs presents unique spatial and hemodynamic challenges given proximity to critical brainstem structures. This presentation provides practical guidance on navigating the vertebrobasilar system, managing the elevated hemorrhagic risk in the posterior fossa's confined anatomy, and protecting vital brainstem perforator arteries during staged embolization.

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