

Supplementary Table 3. Case reports: thrombus/embolus composition and stroke etiologies or underlying pathologies

Study	Case(s) presentation	Thrombus/embolus analysis	Thrombus/embolus composition	Further diagnostic work-up	Stroke cause/underlying pathology
Abdel-Wahed et al. (2019) Am J Med ¹⁴	A 72-year-old woman. Bioprosthetic aortic valve. Suspected urosepsis	Histopathology	Gram-positive cocci in chains	<i>Streptococcus viridans</i> in blood cultures. <i>Klebsiella</i> in urine cultures. Vegetations on the prosthetic aortic valve	Septic embolus. Infective endocarditis
Ambrosioni et al. (2018) Clin Infect Dis ¹³¹	Six cases. Pre- or post-stroke infective endocarditis. Prosthetic or native valves	Molecular biology	<i>Streptococcus</i>	<i>Staphylococcus</i> or <i>Streptococcus</i> in blood cultures in four cases	Septic embolus. Infective endocarditis
Anuwatworn et al. (2015) JACC Cardiovasc Interv ²⁴	A 78-year-old man. Transcatheter aortic valve replacement (TAVR)	Macroscopic. Histopathology	Heart valve tissue	Aortic valve echo-dense mobile mass disappearing after TAVR	Cardiac valve tissue embolization
Bain et al. (2011) J Neuroimaging ¹³²	A 24-year-old female. Left ventricular assist device (LVAD). Epidermidis, septicemia and persistent infections of the LVAD	Histopathology	Gram-positive cocci and bacilli		Septic embolus. Infective endocarditis
Bhaskar et al. (2019) Can J Neurol Sci ¹⁰²	Four cases. Prosthetic valves. History of infective endocarditis in two cases	Histopathology	Fibrinoid material with clusters of bacterial cocci	Prosthetic valve vegetations. <i>Enterococcus faecalis</i> and <i>Staphylococcus aureus</i> in blood culture in two cases	Septic embolus. Infective endocarditis
Biraschi et al. (2016) J Stroke Cerebrovasc Dis ¹⁵	A 75-year-old man. Hypertension and atrial fibrillation	Macroscopic. Histopathology	White-pink hard tissue-like material. Papillary fronds, endothelium and elastic fibers		Cardiac embolic papillary fibroelastoma
Chapot et al. (2006) Am J Neuroradiol ²⁵	A 43-year-old woman. Endovascular intracranial aneurysm treatment	Macroscopic. Histopathology	Cotton-like synthetic fibers		Inadvertent embolization of foreign bodies
Distefano et al. (2019) J Stroke Cerebrovasc Dis ¹³³	A 75-year-old man. Hypertension. Suspected infection	Histopathology	Necrotic material and bacterial colonies	Vegetation in aortic valve. <i>Enterococcus faecalis</i> in blood cultures	Septic embolus. Infective endocarditis
Elodie et al. (2019) J Neurol Sci ²⁶	A 70-year-old woman. Mitral stenosis and atrial fibrillation	Macroscopic. Histopathology. Molecular biology	<i>Tropheryma whipplei</i> DNA sequences	Negative blood culture. Cleared previous suspected small aortic vegetation	Septic embolus. Whipple's endocarditis
Fassa et al. (2014) Circ Cardiovasc Interv ²⁷	A 90-year-old woman. TAVR	Macroscopic. Histopathology	Calcific		Detached aortic valve or aortic wall calcification
Fitzpatrick et al. (2018) J NeuroInterv Surg ²⁸	Three cases. History of deep vein thrombosis	Macroscopic. Histopathology	Elongated, pale-colored clot	Carotid free-floating thrombus (FFT)	FFT embolism
Garcia-Ptacek et al. (2014) J NeuroInterv Surg ²⁹	Two cases. Concomitant peripheral thrombi	Histopathology	Myxomatous material	Echocardiographic mobile mass	Cardiac myxoma embolism
Genchi et al. (2020) J Neurol Sci ³⁰	An 84-year-old man. Atrial fibrillation and uncomplicated carotid plaques	Macroscopic. Histopathology	Reddish tissue with white inclusions. Organized calcified thrombus	Hyperechoic aortic valve calcification	Dislodged aortic valve calcification
Hinman et al. (2013) Front Neurol ¹³⁰	A 28-year-old male. Retinal surgery and post-operative neck compression	Macroscopic. Proteomics	96% Common proteins	Tandem cervical and intracranial occlusions	Traumatic carotid thrombosis and embolization
Kan et al. (2012) World Neurosurg ³¹	A 78-year-old woman. Mitral valve prolapse. Suspected infection	Macroscopic. Bacteriological	Positive for viridans streptococci	Large, mobile vegetation on the aortic valve. Positive blood cultures	Septic embolus. Infective endocarditis
Katano et al. (2020) Clin Neuro ¹³⁷	An 88-year-old man	Histopathology	<i>Aspergillus</i> fungus	Paranasal sinus invasion	Septic embolus. Sinusitis

Supplementary Table 3. Continued

Study	Case(s) presentation	Thrombus/ embolus analysis	Thrombus/ embolus composition	Further diagnostic work-up	Stroke cause/ underlying pathology
Kim et al. (2014) Neurointervention ³²	A 40-year-old woman. Fever, malaise and systolic murmur	Histopathology	Gram-positive cocci	Mitral valve vegetation. Blood cultures positive for <i>Streptococcus mitis</i>	Septic embolus. Infective endocarditis
Koneru et al. (2021) J NeuroInterv Surg ¹⁴¹	Three cases. Aged 41–55 years. Few to no vascular risk factors	Histopathology	Fresh appearance. Usual RBC, FBR, and WBC contents	Ipsilateral angiographic carotid web (CaW). No superimposed thrombus	Embolization from CaW
Matsumoto et al. (2016) J Stroke Cerebrovasc Dis ³³	Two cases. Active cancer	Macroscopic. Histopathology	White and solid. Fibrin >90%. No tumor cells	Cancer-related hypercoagulation	Trousseau syndrome-related thromboembolism
Matsumoto et al. (2020) J Stroke Cerebrovasc Dis ¹³⁹	A 67-year-old man. History of dyslipidemia, taking statins, and smoking	Histopathology	Small calcification and a cholesterol crystal cleft	Atheromatous lesion at the aortic arch	Aortogenic embolic stroke
Nakanishi et al. (2018) Clin Neurol ¹³⁴	An 80-year-old woman. Suspected infection	Macroscopic. Histopathology	White thrombus. Gram-positive cocci	Negative blood culture and echocardiogram	Septic embolus. Infective endocarditis
Pisano et al. (2020) J Stroke Cerebrovasc Dis ³⁴	A 33-year-old. Exposure to a COVID-19 positive relative	Macroscopic	Over 50 mm in length	SARS-CoV-2 positive. Hypercoagulability	Thromboembolism secondary to COVID-19
Salam et al. (2018) J Stroke Cerebrovasc Dis ¹⁶	A 25-year-old woman. No vascular risk factors.	Macroscopic. Histopathology	Pale, white soft material. Papillary neoplasm with hyalinized cores lined by endothelium		Cardiac embolic papillary fibroelastoma
Salinas et al. (2013) JACC Cardiovasc Interv ¹⁷	An 88-year-old woman. Transcatheter aortic valve implantation (TAVI)	Macroscopic	Red-dark	Ventricular echo-dense mobile mass disappearing after TAVI	Catheter-related thromboembolism
Scharf et al. (2016) Neurocrit Care ¹³⁸	A 56-year-old man. Immunocompromised	Histopathology	Fungal hyphae of <i>Zygomycetes</i> species	Fungal culture of sphenoid sinus biopsy positive for <i>Rhizomucor</i> species	Angioinvasive mucormycosis
Scharf et al. (2017) J NeuroIntervent Surg ¹⁸	A middle-aged adult. Mitral valve replacement and infective endocarditis	Macroscopic. Histopathology	Firm and rigid texture. Hyaline and coccal forms	Vegetation on both the mitral valve prosthesis and native aortic valve	Septic embolus. Infective endocarditis
Semerano et al. (2019) J Neurol ¹⁹	An 86-year-old man. Arterial hypertension	Macroscopic. Histopathology	Solid, yellow with red spot. Intima layer, foamy macrophages, lymphocytes, extracellular matrix, smooth muscle cells, cholesterol clefts, focal hemorrhage and outer fibrin cap	Angiographic focal truncal-type occlusion with distal anterograde repermeability in the cerebral vessel	Intracranial atherosclerotic plaque
Sgreccia et al. (2020) J Neuroradiol ¹³⁶	A 31-year-old male. Suspected infection. Aortic murmur	Macroscopic. Molecular biology	White-colored. <i>Candida parapsilosis</i>	Vegetation in bicuspid aortic valve. <i>C. parapsilosis</i> confirmed in blood culture	Septic embolus. Fungal endocarditis
Sukumaran et al. (2012) Neurol India ¹³⁵	A 33-year-old male. Fever and malaise. Cardiac murmur	Histopathology	Clusters of gram-positive cocci	Mobile mass in mitral valve. Alpha hemolytic streptococci in blood culture	Septic embolus. Infective endocarditis
Tejada et al. (2014) J NeuroIntervent Surg ²⁰	A 64-year-old woman. No vascular risk factors	Macroscopic. Histopathology	White soft aspect. Branching papillary lesions, lined by endothelium		Cardiac embolic papillary fibroelastoma

Supplementary Table 3. Continued

Study	Case(s) presentation	Thrombus/ embolus analysis	Thrombus/ embolus composition	Further diagnostic work-up	Stroke cause/ underlying pathology
Thomas et al. (2017) J NeuroInterv Surg ²¹	A 69-year-old woman. Mitral valve replacement surgery	Macroscopic. Histopathology	Tan rubbery object. Collagen, elastin and endothelial cells		Cardiac chordae tendineae embolization
Usui et al. (2019) Intern Med ¹⁴⁰	A 91-year-old man. Hypertension and atrial fibrillation	Histopathology	Foamy cells	Atherosclerotic lesion with ulceration in the aortic arch	Aortogenic embolic stroke
Valente et al. (2019) J Clin Neurosci ²²	A 38-year-old male. Systemic lupus erythematosus	Macroscopic. Histopathology	Firm, pale to tan. Collagenous. IgG, C1q, C3, and IgA positive	Antiphospholipid syndrome	Embolism of a Libman-Sacks vegetation
Wollenweber et al. (2016) Neurology ²³	An 80-year-old woman. TAVI	Macroscopic. Histopathology	Solid tissue. Endothelialized, atherosclerotic arterial vessel wall		Aortic wall fragment embolization

RBC, red blood cell; FBR, fibrin; WBC, white blood cell; COVID-19, coronavirus disease 2019; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; Ig, immunoglobulin.