Interdisciplinary management of a patient with atrial septal defect/ patent foramen ovale: a neurology-cardiology case pathway

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Introduction: Cryptogenic ischemic events in younger adults often prompt evaluation for a patent foramen ovale (PFO) or atrial septal defect (ASD).[1-4] We present a case highlighting coordinated neurology–cardiology decision-making, peri-procedural care, and structured follow-up.

Case report: 49-year-old woman with arterial hypertension, dyslipidemia and previously corrected iron-deficiency anemia, experienced transient ischemic attacks in 2022 and August 2023, followed by right-sided hemisyndrome consistent with ischemic stroke in March 2024. Neuroimaging showed left hemispheric ischemia. Stroke work-up identified PFO; thrombophilia testing noted positive cardiolipin antibodies and suspected antithrombin deficit. Initial secondary prevention included aspirin and statin; clopidogrel intolerance was documented. A joint neurology–cardiology conference reviewed imaging, echocardiography (ICE/TEE), risk of paradoxical embolism, and competing etiologies. Given recurrent events and high RoPE features, percutaneous PFO closure was recommended. On 20-Nov-2024, under ICE and fluoroscopy guidance, a 25-mm Amplatzer PFO occluder was implanted via femoral venous access using the Minnesota maneuver and cable release; hemostasis was achieved without complications. Nursing staff coordinated peri-procedural monitoring, early mobilization, patient education, and discharge planning. Post-procedure antiplatelet therapy was tailored (ticagrelor plus low-dose aspirin for three months, then single antiplatelet therapy), with risk-factor optimization and home-based physical therapy. The patient was discharged in good general condition with sinus rhythm and no new neurological deficits. Early follow-up showed clinical stability; a plan for BP/lipid control, Holter monitoring, and coordinated cardiology–neurology visits was established.

Conclusion: Structured, interdisciplinary pathways—from joint indication setting through device closure and personalized antithrombotic strategy—enable safe, effective secondary prevention in PFO-associated cerebrovascular events. Clear role delineation (neurology, interventional cardiology, nursing, rehabilitation, and laboratory medicine) is central to outcomes and patient experience.

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