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## **P-61 Stroke as an initial presentation of pulmonary arteriovenous malformation**

Shohei Harase<sup>a</sup> [*Senior Resident*], Kiyoshi Kinjo<sup>b</sup>, Manabu Jonosono<sup>b</sup>,  
Masataka Kinjo<sup>b</sup>

<sup>a</sup> Kameda Medical Center, <sup>b</sup> Okinawa Chubu Hospital

### **[Introduction]**

Pulmonary arteriovenous malformation (PAVM) is a rare disease that may cause dyspnea and hemoptysis as an initial presentation. We report a case of an otherwise healthy middle-aged woman presenting with sudden hemiparalysis and altered consciousness, who is later found to have a stroke caused by PAVM.

### **[Case presentation]**

A previously healthy 58-year-old woman presented with altered consciousness preceding sudden tachypnea 30 minutes after sexual intercourse. Physical examination showed blood pressure 150/80 mmHg, heart rate 98 per minutes, respiratory rate 24 and afebrile, left hemiparalysis, right spatial neglect, and altered mental status (Glasgow Coma Scale E3V2M5).

The laboratory test was normal except for lactic acidosis. Brain computed tomography (CT) and MRI revealed no sign of stroke. The initial working diagnosis was seizure with Todd's palsy.

Second day after admission, consciousness level recovered to normal but her hemiparalysis persisted. Repeat MRI demonstrated multi-focal non-lacunar cerebral cortex infraction in the right parietal and occipital lobe.

The source of embolic stroke was investigated; coagulopathy, antiphospholipid antibody syndrome, atrial fibrillation, vasculitis, atherosclerosis, and echocardiograms were all negative. Whole body CT revealed a small PAVM (feeding artery with 2mm in diameter) located in the left lower lobe. We diagnosed embolic stroke due to PAVM. The patient was then scheduled for embolization.

### **[Discussion]**

Even though about one-third of PAVM has neurological complications, stroke is rare as an initial presentation. It is important to evaluate the potential etiology of stroke thoroughly before diagnosing Embolic Stroke of Unknown Source (ESUS), especially with patients who have no cardiovascular risk factors.