

動靜脈畸形和靜脈栓塞的關係：病例報告

The Causal Relationship between the Arterio-Venous Malformation and the Venous Thrombosis: A Case Report

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INTRODUCTION: Although the arteriovenous malformation (AVM) often presented as a congenital entity, the venous thrombosis had been recognized as one of its risk factors or vice versa. Here, we present a case with both AVM and venous thrombosis and literature review of their associated factors.

CASE REPORT: A 19-year-old man came to our hospital because of shortness of breath. CT scan revealed pulmonary embolism with intraluminal filling defects in right anterior basal and left posterior basal segmental pulmonary arteries. Also, A pocket of contrast opacification is seen in left popliteal fossa with intraluminal thrombi and deep vein thrombosis in left distal popliteal vein. After thrombolysis with t-PA infusion and heparin and inferior vena cava filter implantation, he was discharged. The follow up angiography 4 months later showed a high-flow vascular malformation with arteriovenous shunting at left popliteal fossa, supplied by left popliteal artery with aneurysm formation. Therefore, the TAE was performed with coils and microcoils delivered.

DISCUSSION: Angiogenesis and endothelial activation are associated with formation of the arteriovenous malformation. The angiogenic factor related to the thrombosis may include tissue hypoxia, venous hypertension, and presence of the growth factors. The clot may provide a scaffold for malformation formation. Furthermore, the existence of arteriovenous malformation may promote the formation of deep vein thrombosis by hemodynamic turbulence. As in our case, the former seems more likely because the deep vein thrombosis of leg is distal to the popliteal AVM.