Atrial fibrillation, acute stroke and cerebral arteriovenous malformation: best approach?

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Abstract

Atrial fibrillation (AF) is the most common risk factor for cardioembolic stroke. The mainstay of preventive therapy for this stroke is anticoagulation. However, a substantial number of patients may present comorbidities, such as cerebral arteriovenous malformations (AVM), which may limit the use of anticoagulants due to the high haemorrhagic risk. We report a 72-year-old woman, with previous background of hypertension and non-valvular AF treated with rivaroxaban. In 2017, after an acute neurological dysfunction episode (aphasia), a temporal hematoma due to a cerebral AVM (Martin-Spetzler grade 2) was diagnosed. The anticoagulation was suspended at that time. One year later, she was admitted for ictal left motor deficit and imbalance of gait noticed 3 days earlier. She had slight language deficit, mild left hemiparesis with left central facial paresis and mild dysarthria (NIHSS 5). The MRI showed an acute right pontine stroke. The case was discussed in multidisciplinary team (high embolic risk (CHA2DS2-VASc score =5), haemorrhagic risk due the AVM and HAS-BLED = 3) and it was decided first to proceed with the resection of the brain AVM. Four weeks after surgery oral anticoagulation with Dabigatran Etxilate 150mg bid was started. Three months later, the patient maintained only a mild language deficit (NIHSS 1, mRS = 1). The present case illustrates the complexity of management patients with high embolic and simultaneously haemorrhagic risk. Further studies are necessary to evaluate the effect of the new oral anticoagulants on the risk of further intracranial hemorrhage after cerebral AVM treatment.