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Editorial

Early Administration of OAC (Oral Anticoagulant) for Acute Ischemic Stroke Patients with Atrial Fibrillation

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Editorial

Cardioembolic stroke (CES) is the most severe type of acute ischemic stroke (AIS) [1,2]. Compared with other types, patients with CES are prone to early (1-10%) [1,2] and long-term stroke recurrence (2-15% in the first year) [3]. Atrial fibrillation (Af) has been reported to be a leading risk factor and causes approximately three-quarters of CES [1,2]. An oral anticoagulant (OAC), warfarin, can reduce the recurrence of CES due to Af by 66% [3]. Although recurrence after CES frequently occurs during the acute stage [1,2], the efficacy of intravenous anticoagulant therapy like heparin has not been proven [4-6], and the timing of starting OAC for those patients is still unclear. Furthermore, titrating warfarin approximately is sometimes difficult at the acute stage owing to its slow action, with the interaction with other drugs. An initial prothrombic state induced by warfarin is also a concern [7,8]. As a countermeasure for this, bridging heparin with warfarin is performed in daily clinical practice, although its efficacy was not demonstrated in a previous symptom-oriented study [9]. We reported that achieving target prothrombin time–international normalized ratio (PT-INR) at 2 weeks in AIS patients with Af was significantly associated with a lower frequency of new recurrent lesions on diffusion-weighted magnetic resonance imaging; however, only 42.3% of all patients could achieve target PT-INR at 2 weeks [10].

Recently, some non-vitamin K antagonist oral anticoagulants (NOACs) were developed and have been reported to have equivalent or more power than warfarin to reduce stroke recurrence in Af patients; as an additional advantage, they are also associated with fewer hemorrhagic complications than warfarin [11,12]. There is still little evidence about the mode of administering NOACs to AIS patients. As a rule of thumb, the 1-3-6-12 day rule is advocated: anticoagulation will be re-instituted after 1 day in patients with a transient ischemic attack (TIA), after 3 days with a small, non-disabling infarct, and after 6 days with a moderate stroke, while large infarcts involving large parts of the arterial territory will be treated not before 2 (or even 3) weeks [13]. Recently, Shibazaki et al. reported a satisfactory outcome (no symptomatic intracerebral hemorrhage and no recurrent stroke or TIA within 3 months) in 41 patients with AIS and Af for whom an NOAC (dabigatran or rivaroxaban) was given at a median interval of 2 days from onset [14]. NOACs may be superior to warfarin to prevent recurrence from the acute stage owing to their rapid action, simplicity, and safety. Further rigorous study to find the best approach for the early administration of OAC for AIS patients with Af is warranted.

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