Findings may help with the management of anticoagulant-related bleeding within the brain

February 24 2015

Among patients with oral anticoagulation-associated intracerebral hemorrhage (bleeding within the brain), reversal of international normalized ratio (INR; a measure used to determine the clotting tendency of blood while on medication) below a certain level within 4 hours and systolic blood pressure less than 160 mm Hg at 4 hours were associated with lower rates of hematoma (a localized swelling filled with blood) enlargement, and resumption of anticoagulant therapy was associated with a lower risk of ischemic events without increased bleeding complications, according to a study in the February 24 issue of *JAMA*.

The prevalence of cardiovascular diseases requiring long-term oral anticoagulation (OAC) is increasing. The most significant complication of OAC is intracerebral hemorrhage (ICH). Among all types of stroke, there is a substantial lack of data about how to manage OAC-ICH. Two of the most pressing unsettled questions are how to prevent hematoma enlargement and how to manage anticoagulation in the long-term. Consensus exists that elevated INR levels should be reversed to minimize hematoma enlargement, yet mode of reversal, timing, and extent of INR reversal are unclear. Valid data on safety and clinical benefit of OAC resumption are missing and remain to be established, according to background information in the article.

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Erlangen, Germany, and colleagues conducted a study to assess the association of anticoagulation reversal and blood pressure (BP) with hematoma enlargement and the effects of OAC resumption. The study, conducted at 19 German tertiary care centers (2006-2012), included 1,176 individuals for analysis of long-term functional outcome, 853 for analysis of hematoma enlargement, and 719 for analysis of OAC resumption.

Hemorrhage enlargement occurred in 307 of 853 patients (36.0 percent). Reduced rates of hematoma enlargement were associated with reversal of INR levels