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Editorial

Is the Risk for Venous Thromboembolism in East Asian Patients with Inflammatory Bowel Disease Comparable to That in Western Patients?

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See "Venous Thromboembolism Risk in Asian Patients with Inflammatory Bowel Disease: A Population-Based Nationwide Inception Cohort Study" by Su Young Kim, et al. on page 555, Vol. 16, No. 4, 2022

Inflammatory bowel disease (IBD), comprising Crohn's disease and ulcerative colitis, is a chronic systemic disease that predominantly affects the gastrointestinal tract.[1] Patients with IBD are known to be at increased risk of venous thromboembolism (VTE), similar to that of those with other immune-mediated inflammatory diseases.[2,3] In accordance with the increasing incidence and prevalence of IBD around the world,[4] IBD-related VTE is becoming an important issue. The risk for VTE in patients with IBD has been reported to be 2- to 3-fold than patients without IBD.[1,3] Pulmonary embolism (PE) and deep vein thrombosis (DVT) of the leg are known to be the most common sites of VTE, but unusual sites of VTE, such as cerebral vein thrombosis, have also been reported.[1] However, most published data regarding VTE in patients with IBD are from Western patients, while studies that focus on Asian IBD patients are very rare. Prophylaxis for VTE in Asian IBD patients has also been controversial.

Following current evidence, Western guidelines such as the European Crohn's and Colitis Organisation consensus and the American College of Gastroenterology clinical guideline recommend that antithrombotic prophylaxis to prevent VTE should be considered in IBD patients with risk factors for VTE, especially in hospitalized patients with acute severe disease.[3,5] The risk of VTE in patients with IBD is particularly apparent during hospitalization and disease flare-up. Other risk factors for VTE such as surgery, pregnancy, obesity, and old age are also well-established.[3,5] Recently, an international consensus on the prevention of venous and arterial thrombosis in patients with IBD was released.[1] In the consensus, thromboprophylaxis was strongly recommended in hospitalized patients regardless of the cause of hospitalization. Even in remission, hospitalized patients with IBD were reported to have higher risk of VTE compared with those without IBD. The consensus, furthermore, recommended that prophylaxis should be maintained during the hospitalization period and even after discharge in patients with strong risk factors for VTE.[1] If the patient with active IBD is ambulatory but has known risk factors for VTE, prophylaxis can be considered on a case-by-case basis, following the consensus. However, it was not clear whether anticoagulation prophylaxis might be justified in East Asian patients with IBD as the studies comparing the general risk of VTE in IBD patients with that in those without IBD were scarce in East Asia.

To address this gap in the literature, in the current issue of *Gut and Liver*, Kim *et al.*[6] investigated the risk of VTE in Korean patients with IBD. The authors performed a nationwide, population-based, cohort study using the Korean National Health Insurance System, and 45,037 patients with IBD and 133,019 age- and sex-matched controls were recruited based on ICD-10 codes of IBD and VTE (DVT or PE). Between January 2006 and December 2015, VTE was diagnosed in 411 patients in the IBD cohort (0.9%) and 641 in the control cohort (0.5%). The incidence rates (IRs) for VTE were 18.0 per 10,000 person-years in the IBD cohort and 9.4 in the non-IBD cohort (IR ratio, 1.92; 95% confidence interval [CI], 1.69 to 2.18). When stratified by type of IBD, the IR ratios for VTE were 2.45 (95%

CI, 1.89 to 3.18) and 1.80 (95% CI, 1.56 to 2.08) in Crohn's disease and ulcerative colitis, respectively. In the multivariate analysis of the IBD cohort, age was associated with an increased risk of VTE in IBD patients, and notably IBD patients aged ≥60 had a hazard ratio (HR) of 4.10, the highest in the analysis. Other than old age, significant risk factors for VTE in IBD patients were found to be female sex, high Charlson comorbidity index score, cardiovascular or chronic kidney disease, steroid use, and hospitalization. Another Korean study estimated the risk of VTE in Korean IBD patients based on National Health Insurance claims data between 2012 and 2016.[7] They found an adjusted HR of 2.06 in patients with IBD compared to that in controls. The highest HRs were noted in IBD-related bowel surgery (HR, 39.7) and hospitalization (HR, 27.2 and 16.23 with flare and without flare, respectively). A recent nationwide cohort study in Taiwan reported that the relative risk of VTE was 2.27 in IBD patients, compared with that in non-IBD patients.[8] These results seem to be consistent with previous data from Western studies, one of which reported a relative risk of 2.20 for DVT and PE after meta-analysis of 11 observational studies.[9]

The risk of VTE in East Asian patients with IBD seems to be underestimated by clinicians, but current data from the recent studies concur with the Western data. Thus, it seems to be reasonable, with the current evidence, that antithrombotic prophylaxis is considered in all hospitalized patients and selected patients with high-risk factors, in line with Western guidelines.[1,3,5] To more clearly support the strategy of VTE prophylaxis in East Asian patients, a well-designed prospective study focusing on the effect of thromboprophylaxis on VTE outcome is warranted.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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