Cardiovascular Protections in Severely Impaired Hemostasis

To the Editor:

There is mounting evidence that severely impaired hemostasis is associated with a decreased risk of ischemic cardiovascular disease. In a study with long follow-up, hemophilic patients had an 80% reduction in the risk of fatal ischemic heart disease.\(^1\) In clinical practice, occurrence of cardiovascular disease is uncommon in patients with type 3 severe von Willebrand disease, a coagulation disorder in which the severity of bleeding may sometimes resemble that in patients with hemophilia.

However, Šrámek et al\(^2\) reported that patients with type 3 von Willebrand disease were not protected against the development of early atherosclerosis changes as assessed by measuring carotid and femoral intima-media thickness, thus suggesting that von Willebrand factor is not essential for the development of atherosclerosis. Therefore, in impaired hemostasis, other cardiovascular protective mechanisms could be involved.

An epidemiological study\(^3\) found that serum ferritin, a good measurement of body iron stores, emerged as one of the strongest risk factors for progression of carotid atherosclerosis. Furthermore, a recent study\(^4\) identified an independent relationship between serum ferritin levels and carotid atherosclerosis. Although ferritin levels have not been shown to be associated with carotid intima-media thickness,\(^5,5\) body iron stores may promote atherosclerosis at a stage beyond intima-media thickening. Thus, the protection against ischemic cardiovascular disease in individuals with impaired hemostasis might be related to the decrease of stored tissue iron caused by recurrent bleeding.

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