

[ LETTERS TO THE EDITOR ]

**Reply to “Detailed Pathophysiology of Ischemic Colitis Following Plasma Donation”**

**Key words:** blood donation, hypotension, ischemic colitis, vasovagal reaction

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**The Authors Reply** We would like to thank Dr. Izumida and Dr. Imamura for their interest in our paper (1) and for taking the time to express their concerns. Their concerns were “whether such a transient (only 10 seconds) colonic hypo-perfusion would cause ischemic colitis” and whether “thrombophilia (i.e., a deficiency of protein C, protein S, and anti-thrombin III) might be associated with ischemic colitis”

First, we agree with their first concern. Ischemic colitis caused by syncope has not been reported in the available literature. Furthermore, in this case, we did not know the exact duration of hypotension. A possible mechanism for ischemic colitis is vasospasm. Intestinal ischemia is related to acute arterial occlusion, venous thrombosis, or hypoperfusion of the mesenteric vasculature, thus resulting in nonocclusive ischemia. Nonocclusive ischemia includes nonocclusive mesenteric ischemia (NOMI) and ischemic colitis. NOMI may develop because of mesenteric vasoconstriction and vasospasm, which often persist even after resolution of the precipitating event (2). Although controversy remains regarding the differences in the pathology of the two conditions, mesenteric vasoconstriction and vasospasm may cause ischemic colitis (3).

Second, we did not perform tests for protein C, protein S, and anti-thrombin III. However, Siti Nadiyah et al. reported that anti-thrombin, protein C, and protein S levels were sig-

nificantly reduced after plateletpheresis; however, the levels were within the acceptable range (4). Moreover, a deficiency of protein C, protein S, and anti-thrombin III is associated with venous thrombosis. In this patient, the D-dimer level was not elevated. Contrast abdominal computed tomography did not reveal occlusion of the mesenteric artery or mesenteric vein. The patient recovered without the administration of anticoagulation therapy. Therefore, we believe that vasovagal reaction can also cause nonocclusive ischemia.

We recommend that vasculitis should be investigated in younger ischemic colitis patients without systemic atherosclerosis. However, our patient tested negative for antineutrophil cytoplasmic autoantibodies and antinuclear antibody.

**The authors state that they have no Conflict of Interest (COI).**

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