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Letter to the Editor

Author's reply to "Anticoagulation strategy and management of patients with mechanical prosthetic heart valves during pregnancy"

We are thankful for your insightful and thorough comment on our article [1]. In particular, we completely agree with your concern regarding the optimal anticoagulation strategy in the first trimester of pregnancy.

As you mentioned, low-dose vitamin K antagonist (VKA) is associated with low risk of embryopathy; however, high warfarin sensitivity [2] among Asians should also be taken into consideration. Japanese patients are known to have a higher risk of major bleeding and intracranial hemorrhages than Westerners under VKA therapy [3]. Suzuki et al. reported that the incidence of major bleeding under low-dose (prothrombin time-international normalized ratio 1.4–2.8) warfarin therapy for non-valvular atrial fibrillation is 0.4–1.3% among Westerners and 2.38% in Japanese patients [3]. Attention should be paid to bleeding events during anticoagulant and thrombolytic therapies among Japanese patients. Hence, the risk of fetal hemorrhages might be higher and the safer dosage for reducing VKA-associated embryopathy risk might be lower among Asians than that for Westerners. Thus, the optimal dose of VKA should be investigated in Japanese cohorts. In this regard, a prospective cohort study in Japan might be helpful to discuss the optimal anticoagulation strategy. Thus far, Japanese guidelines comprise descriptions of the American College of Cardiology/American Heart Association guidelines and anticoagulation regimen for Japanese pregnant women with mechanical heart valves. Specifically, Japanese guidelines recommend the administration of heparin and not VKA because of the risk of teratogenicity during the first trimester. Administration of VKA is recommended after 14 weeks of pregnancy [4]. Our protocol was in accordance with this recommendation.

We also agree with your comments regarding the transesophageal echocardiographic evaluation; however, progression of heart failure symptoms after the physical examination limited the evaluation in our case. Fortunately, transthoracic echocardiography clearly showed the mechanical valve and left atrium, and the large thrombus and pannus formation were not detected similar to the previous evaluation at the outpatient clinic. Low-dose, slow-infusion recombinant tissue-type plasminogen activator (rt-PA) [5] dramatically improved the symptoms and leaflet motion of the mechanical valve. Thus, early reuse of VKA was selected to reduce the bleeding risk due to rt-PA in this case.

References

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