Response 1: Relationship between the Red Cell Distribution Width and One-year Outcomes in Patients with Stable Angina Pectoris in a Chinese Population

Key words: hepcidin, red cell distribution width, stable angina pectoris


The Authors Reply In a Letter to the Editors of Internal Medicine, Dr. Kenji Shinohara et al. discussed hepcidin, a key regulator of body iron homeostasis, as being implicated in the pathogenesis of anemia of both chronic disease and inflammation. In addition, the authors stated that measuring the serum level of hepcidin and red blood cell indices including the mean corpuscular volume (MCV), is recommended in order to clarify the mechanisms underlying the elevated red cell distribution width (RDW) values observed in such patients.

In one study, Rhodes et al. (1) drew the conclusion that an inappropriately increased hepcidin level contributes to the development of iron deficiency in patients with idiopathic pulmonary arterial hypertension. Importantly, the iron status represents an accessible target for novel therapeutic intervention. In another study, Jankowska et al. (2) reported that, although hepcidin is the major regulatory protein in iron metabolism, an increased level of circulating hepcidin is a characteristic of early-stage HF and is not accompanied by either anemia or inflammation. Therefore, we believe that whether the serum hepcidin level affects the RDW value in patients with angina pectoris is unclear.

Although how the serum hepcidin level affects the RDW value in patients with angina pectoris has not been clarified, we agree that the advice offered by Dr. Kenji Shinohara et al. can help to further our understanding of why the RDW values change in patients with angina pectoris. On the other hand, measuring the serum level of hepcidin, is not commonly performed in patients with coronary heart disease, at least in China. Therefore, in our patients, we did not include measurements of the serum hepcidin level as a necessary target. In a future study, we will take the measurement of hepcidin into account, which will perhaps make our conclusions more persuasive.

An elevated RDW value may indicate functional iron-deficiency anemia (IDA) in patients with coronary disease (3, 4). However, in our study, we excluded all IDA patients, hence, we believe that the effects of IDA can be disregarded in our study population. On the other hand, we acknowledge that red blood cell indices, including the MCV, should be assessed in order to clarify the mechanisms underlyng the elevated RDW values observed in such patients. We therefore plan to include measurements of important red blood cell indices in our future research.

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

Hairong Ren¹, Qi Hua², Meiyan Quan² and Haixia Hou²

References


¹Department of Cardiology, the Inner Mongolia Autonomous Region People’s Hospital, China and ²Department of Cardiology, Xuanwu Hospital, Capital Medical University, China

Received for publication November 8, 2013; Accepted for publication November 25, 2013

Correspondence to Dr. Qi Hua, huapi5371@medmail.com.cn

© 2014 The Japanese Society of Internal Medicine Journal Website: http://www.naika.or.jp/imonline/index.html