

### The authors' reply

Dear Editor,

First of all, we want to thank authors for their interest in our case report titled "A case of myocarditis mimicking acute coronary syndrome associated with H1N1 influenza A virus infection".

Similar to our patient with clinical findings of acute coronary syndrome and H1N1 influenza A virus infection, they observed sudden-onset symptoms of acute coronary syndrome in a patient with parainfluenza 4 virus infection. Myocarditis and pericarditis are well-recognized sequelae of many viral infections. Human parainfluenza viruses have been recognized as a cause of respiratory tract infections. Parainfluenza virus type 4 has been mostly associated with mild illness, but it can cause a more severe infection especially in elderly patients.<sup>[1]</sup>

Myopericarditis due to parainfluenza viruses type 2 and 3, but not type 4, has been reported previously.<sup>[2]</sup> Abnormal electrocardiographic findings can persist for several weeks after the initiation of the illness in patients with parainfluenza virus type 2 or 3. Myocardial infarction and pulmonary edema was reported in an 84-year-old woman with underlying coronary heart disease after infected with human parainfluenza type 4 virus, without symptoms and signs of myopericarditis.<sup>[3]</sup>

A case with myocarditis mimicking acute coronary syndrome following influenza B virus infection was reported in Japan.<sup>[4]</sup> Coronary angiography showed normal coronary arteries without any narrowing. In another study, parvovirus B12 infection mimicking acute myocardial infarction was reported in 24 consecutive patients presenting with chest pain, in whom coronary artery disease was excluded by coronary angiography.<sup>[5]</sup> We also showed patency of the coronary arteries in our case with H1N1 influenza A infection despite acute coronary syndrome setting. Unfortunately, in the authors' case, the patient refused coronary angiographic evaluation, so patency of coronary arter-

ies could not be confirmed. Therefore, the suspicion and possibility of coronary heart disease continue for this patient.

Similarly, Chen et al.<sup>[1]</sup> described a 41-year-old man who developed ventricular tachycardia, pulmonary edema, and shock with ST elevation on ECG after parainfluenza virus type 1 infection. Coronary angiography could not be performed in this case, either.

Due to the lack of any cardiovascular risk factor in this 38-year-old male patient presented by the authors, it can be concluded that the probable, but not certain diagnosis is myopericarditis mimicking acute coronary syndrome based on the clinical and laboratory findings.

Sincerely,

On behalf of the authors,

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