Reply to “Chest Radiographs of the Acute Middle East Respiratory Syndrome Coronavirus”

We appreciate the comments from Joob and Wiwanitkit [1]. We share their concern about the challenge that practitioners may encounter when evaluating an asymptomatic or mild case of Middle East respiratory syndrome coronavirus (MERS-CoV). Although no appreciable abnormality was detected on initial chest radiographs in 17% of the patients infected with MERS-CoV in our study, the remaining 83% presented with lung parenchymal abnormalities [2, 3]. On chest radiography, MERS-CoV was characterized by ground-glass opacity (66%), and lung parenchymal abnormalities had a peripheral mid and lower lung zone predominance [2]. However, we believe that CT, which is more sensitive and specific than chest radiography, should be considered for confirmation, characterization, and assessment of disease progress in patients who are likely or known to be infected with MERS-CoV but who have mild or no symptoms or equivocal chest radiographic findings [3].

The radiologic features of peripheral airspace opacification in the majority of our cohort were one of several striking similarities to severe acute respiratory syndrome [4]. Peripheral airspace opacities are also noted with other causes of atypical pneumonia, such as Chlamydia, Mycoplasma, Legionella, other types of viral pneumonia in adults, and H1N1 influenza [5–7]. We believe that MERS-CoV infection should be suspected when ground-glass opacities with peripheral lower lobe preference are seen on imaging studies in patients with or without symptoms but with risk factors as well as suspicious clinical findings and laboratory results. As Joob and Wiwanitkit [1] correctly pointed out, asymptomatic or mild MERS-CoV infection may present with a different pattern of imaging findings, and future study is necessary to further elucidate potentially characteristic imaging findings of MERS-CoV.

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