References


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Variability in the prevalence of radiographic stigmata and in their use for profiling disease severity makes comparisons more complicated

Sir,

The fact that as many as 21% of the patients with a clinical diagnosis of community-acquired pneumonia (CAP) may have ‘negative’ chest radiographs on admission adds complexity to the validation of CAP by chest radiography, and also has the potential to complicate comparisons of profiles of disease severity, given the fact that, in some profiles, radiographic stigmata make a contribution to the eventual severity score, and in others they do not. Although the ‘reference standard to diagnose CAP is a new infiltrate on chest radiograph in the presence of recently acquired respiratory signs and symptoms’, patients who have negative chest radiographs on admission have clinical stigmata and disease severity comparable with their counterparts with positive chest radiographs. To complicate matters even further, although only a minority of chest radiograph-negative patients with clinical stigmata of CAP have been followed up with repeat imaging studies, in 44% of those instances of repeat imaging, an infiltrate was identified, which was not present in the initial chest radiograph.

In terms of prognostic implications, useful analogies can be derived from similarities between chest radiograph-
negative patients with clinical stigmata of CAP, and patients with ‘masked’ hypertension, the latter characterized by normal ‘office’ blood pressure in spite of ‘out-of-office’ measurements in the hypertensive range. The starting point is that the prevalence of ‘negative’ chest radiography in patients who have clinical stigmata of CAP is virtually identical with the upper limit (i.e. 20.5%) of the prevalence of masked hypertension in the hypertensive population. The corollary is that the presence of comparable disease severity in chest radiograph-negative and in their chest radiograph-positive counterparts resonates with the documentation that individuals with masked hypertension have ‘similar cardiovascular risk as sustained hypertensives but they remain undetected’.

Accordingly, just as risk profiling of all hypertensive patients will only come of age when detection of this disorder also encompasses detection of masked hypertension, optimum severity assessment for CAP will only be achieved when due account is also taken of chest radiograph-negative subjects with clinical stigmata of this disorder. Meantime, where the index of suspicion for CAP is sufficiently high modalities such as computed tomography might have to be utilized to validate the diagnosis in the event of the occurrence of ‘negative’ plain chest radiographs.

References


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