Does Respiratory Infection Due to *Chlamydia pneumoniae* Still Exist?

To the Editor—Since the late 1980s, *Chlamydia pneumoniae* has been considered an agent of community-acquired pneumonia and of other respiratory tract infections affecting all ages [1]. The common occurrence of *C. pneumoniae* infection is suggested by the high seroprevalence (≥70%) observed in adults [2]. However, in recent studies [3–5], the prevalence of respiratory infections due to *C. pneumoniae* was reported to be much lower (<1.5%) than previously (6%–22%) [6]. This apparent decrease in the prevalence of *C. pneumoniae* infection could be due to changes in the epidemiological characteristics of *C. pneumoniae* over time, to increased specificity of new diagnostic methods, or to the difficulty for clinicians to target the infected population.

In our university hospital, we routinely use a multiplex real-time polymerase chain reaction (PCR) for the detection of *C. pneumoniae* and *Mycoplasma pneumoniae* DNA [7]. From October 2001 through June 2010, a total of 2244 respiratory specimens retrieved from 1583 patients were sent to the laboratory for *C. pneumoniae* and/or *M. pneumoniae* PCR, including 884 bronchoalveolar lavage samples, 843 nasopharyngeal swab samples, 354 bronchial aspirate samples, 111 sputum samples, and 52 other samples. Only 4 samples (0.2%) taken from 2 patients were positive for *C. pneumoniae,* whereas 76 samples (3.4%) were positive for *M. pneumoniae* in 65 patients. In both cases, the diagnosis of *C. pneumoniae* infection was not suspected by the clinician and the test was performed thanks to the multiplex format of our molecular test.

The first patient with *C. pneumoniae* infection was a 48-year-old man receiving immunosuppressive therapy for inflammatory bowel disease. He presented with a chronic cough initially suspected to be asthma and a febrile episode. PCRs performed on sputum samples obtained on day 0 and day 4 had highly positive results, with 2,285,300 copies/mL (Ct = 24.6) and 2,389,200 copies/mL (Ct = 25). The amount of DNA decreased to 465 copies/mL (Ct = 37.2) in 17 days. In the presence of a persistent dry cough despite the falling bacterial load, clarithromycin 500 mg per day was administered for 2 weeks. Clinical evolution was favorable under antimicrobial therapy with rapid decrease of cough. Follow-up PCRs at days 34 and 48 had negative results.

The second patient with *C. pneumoniae* infection was a healthy 13-year-old girl presenting with a third episode of pneumonia over a 5-month period. PCR performed on a nasopharyngeal swab sample yielded positive results, with 153 copies/mL (Ct = 36.5). The patient's condition improved with clarithromycin therapy.

This study confirms that *C. pneumoniae* is rarely detected, at least in our setting, because only 2 of 1583 patients were identified with *C. pneumoniae* infection during a 10-year period. This may reflect a low prevalence of the disease and/or suggests that clinicians do not target the right population. The second hypothesis is supported by the fact that both cases were not suspected by the physician in charge and the etiological diagnosis was made thanks to the duplex approach of our molecular test. Because *C. pneumoniae* infection may be associated with persistent cough in adults [8, 9], it should be included in the differential diagnosis of chronic cough and asthma.

Notes

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