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Editorial Open Access

Chlamydophila Pneumonia

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Editorial

Chlamydophila pneumoniae (formerly Chlamydia pneumonia (is a Gram-negative intracellular bacterium [1] responsible for acute upper and lower respiratory tract infections. The first known case of infection with *C. pneumoniae* was a case of sinusitis in Taiwan. This atypical bacterium commonly causes pharyngitis, bronchitis, sinusitis [2] and atypical pneumonia [3] not only in elderly and debilitated patients, but also in healthy adults [4]. The term atypical pneumonia was used by Reiman in 1938 to describe the infection of non-characteristic course resistant to sulphonamide therapy [5]. Some researchers used the term “infections with atypical pathogens” to describe infection caused by Chlamydia, Mycoplasma and Legionella [6]. In addition to pneumonia, *C. pneumoniae* causes extrapulmonary manifestations include nervous system disorders such as Guillain-Baré syndrome and meningoencephalitis as well as atherosclerosis and coronary artery disease [7], reactive arthritis [8] and myocarditis [9].

Specific diagnosis of infection with atypical pathogens is important because treatment with routinely used β-lactam antibiotics is ineffective against these organisms, and atypical pneumonia can sometimes develop a severe clinical course. The isolation of *C. pneumoniae* in cell cultures as HEp-2 and HL cells require multiple passages over a period of weeks to show a positive result [10]. Failure to isolate the pathogen may be due to inadequate sample, specimen toxicity in cell culture or loss of specimen viability during transportation. Antigen detection tests include direct fluorescent antibody assays (DFA) and enzyme immunoassays (EIA) have the advantage of rapid turnaround time. Diagnosis of acute *C. pneumoniae* infection is based on paired serum samples obtained 4 to 8 weeks apart showing a 4-fold increase in IgG antibody titer, or on a single sample showing IgM antibody positivity [11]. IgA antibodies may be a marker of persistent infection and has been used in the definition of chronic *C. pneumoniae* infection [12]. The microimmunofluorescence (MIF) assay developed by Wang et al., [13] is considered the gold standard for Chlamydia serology today. It was proved to be suitable for routine diagnosis [14]. In the MIF test, purified elementary bodies are used to detect Chlamydia-specific antibodies in the IgM, IgG, and IgA serum fractions. The diagnostic criteria were a significant increase in specific antibody titer in paired serum samples, a very high specific IgG antibody titer, or the presence of IgM antibodies against *C. pneumoniae* [15]. Polymerase chain reaction (PCR) techniques have been developed for the detection of *C. pneumoniae* DNA [16]. Johansson et al, [17] reported that PCR was more sensitive than conventional microbiological methods and it could help to increase the microbial yield for patients with community acquired pneumonia.

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