theoretically produce either pneumonia or just asymptomatic infection.

J. Roig*, X. Soler#, C. Domingo¶, G. de Celis+
*Pulmonary Division and +Dept of Internal Medicine, Hospital Nostra Senyora de Meritxell, Escaldes, Principality of Andorra. #Servei de Pneumologia, Hospital Germans Trias I Pujol, Badalona and ¶Servei de Pneumologia, Corporació Hospitalària Parc Taulí, Sabadell, Barcelona, Spain.

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From the author:

There is no agreement on the answer to the question concerning the preferred method for the diagnostic aetiology of respiratory tract infections in general and of *Legionella* spp. in particular.

The opinion expressed in the letter by J. Roig and colleagues presents one side of the spectrum of opinions on this issue. Their explicit opinion that Legionella isolation remains the gold standard for diagnosing any form of Legionella infection is a minority position, so it is no coincidence that the reference quoted by them in support of this position is their own. This approach assumes an optimal and, in our opinion, unrealistic assumption that in all cases of Legionella infection it is feasible to isolate the pathogen. This approach completely ignores the difficulty involved in obtaining appropriate material for the isolation of the pathogen in some of the patients, as well as the technical complexity of the isolation. Defining this problematic laboratory test as a gold standard would turn the

infection, as defined by this diagnostic method, into a very rare one.

In contrast to the minority position of J. Roig and colleagues is the generally accepted opinion in the clinical medical literature, that isolation of the pathogen is only one of the methods for diagnosing Legionella infection. Lack of isolation of the pathogen does not rule out the diagnosis, which can also be based on identification of the urinary antigen and on serological techniques conducted under strict quality control measures in which seroconversion is demonstrated. In a comprehensive survey of the large body of studies that evaluated infectious aetiologies in respiratory tract infections, especially pneumonias, not a single study was found in which the lone diagnostic criterion for the diagnosis of Legionella infections was isolation of the pathogen by culture. In the vast majority of those studies, Legionella infections were also diagnosed by serological methods identical to those used in our study. The investigators in those studies based the diagnosis of Legionella infection on seroconversion, despite the fact that they were well aware of the lack of absolute specificity of this finding for the diagnosis of Legionella infection, as discussed in the letter by J. Roig and colleagues.

Since we were aware of the lack of absolute specificity of the serological diagnosis of Legionella infections, we included a control group in our study and also looked for unique clinical manifestations in the group of patients with serological evidence of Legionella infection. These two important points, which were also noted in the editorial written by Ewig [1] on this subject, add further indirect, but important, diagnostic support to the findings of our study.

In light of the above, we believe that the results of our study are sufficiently founded to justify the inclusion of *Legionella* spp. in the list of potential pathogens associated with acute exacerbations of chronic obstructive pulmonary disease. It would be appropriate to assess the exact role of these pathogens in these episodes and the clinical and therapeutic implications in future studies.

D. Lieberman*,#, D. Lieberman#, O. Shmarkov#, Y. Gelfer#, M. Ben-Yaakov¶, Z. Lazarovich¶, I. Boldur¶

*The Pulmonary Unit and #Division of Internal Medicine, Soroka Medical Centre and the Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, and ¶the Microbiology Laboratory, Asaf Harofeh Medical Centre, Zerifin, Bar-Ilan University, Ramat-Gan, Israel.

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