RELATIONSHIP BETWEEN RHEUMATOID ARTHRITIS AND *MYCOPLASMA PNEUMONIA*

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Mycoplasmas are the smallest self-replicating, pleotrophic bacteria that lack cell walls. The largest group of the Mollicutes class is divided into more than 100 *Mycoplasma* species. Mycoplasmas are often found as extracellular parasites attached to the external surfaces of host cells, but some species invade host tissues and cells, and replicate intracellularly. These microorganisms can produce a variety of effects on host cells and tissues. Besides affecting cell growth and morphology, mycoplasmas are able to alter metabolic, immunological and biochemical functions. Rheumatoid arthritis (RA) has a complex and multifactorial etiology. Infectious agents could start this disease. The majority of the characteristics of this infirmity can be observed in chronic arthritis produced by mycoplasmas in animals. In this study, the association between *Mycoplasma pneumoniae* and RA has been evaluated.

Patients with *Mycoplasma pneumonia* (MP) infection have an increased risk of rheumatoid arthritis (RA) developing. The results indicated that this risk is more pronounced in the first 2 years of MP and for patients aged ≤19 and ≥65 years. To determine the incidence of mycoplasmas in human arthritis new direct methods such as the polymerase chain reaction and a known human mycoplasma isolates should be used. Cooperation on an international level would be valuable. The presence of antibodies against *M. pneumoniae* was associated with RA (odds ratio=2.34, $p<0.001$).

The results suggest that *M. pneumoniae* could be a cofactor in the pathogenesis of RA; however, more studies need to be done.