

# Chlamydia may play role in a type of arthritis

April 30 2009

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Spondylarthritis (SpA) represents a group of arthritides that share clinical features such as inflammatory back pain and inflammation at sites where tendons attach to bone. It includes ankylosing spondylitis (AS), psoriatic arthritis, inflammatory bowel-disease-related arthritis, reactive arthritis (ReA) and undifferentiated spondylarthritides (uSpA).

Since [Chlamydia trachomatis](#) or *Chlamydia pneumoniae* (which are often asymptomatic) frequently cause ReA, a new study examined whether there was a connection between these two infections and uSpA. The study was published in the May issue of [Arthritis & Rheumatism](#).

Led by John D. Carter of the University of South Florida, the study involved blood and synovial tissue analysis from 26 patients who had chronic uSpA or Chlamydia-induced ReA. Synovial tissue samples from 167 osteoarthritis patients were used as controls. Samples were analyzed to assess chlamydial DNA and the 26 subjects were asked if they had any known exposure to *Chlamydia trachomatis* or *Chlamydia pneumoniae* and if so, the infection was documented in relation to the onset of their uSpA. They also underwent a physical exam that included evaluation of swollen and tender joints and other symptoms of SpA. The results showed that the rate of Chlamydia infection was 62 percent in uSpA patients, significantly higher than the 12 percent seen in control subjects.

It is believed that as many as 150,000 cases of Chlamydia trachomatis-induced ReA may appear in the U.S. each year compared to about

125,000 new cases of rheumatoid arthritis. This is a low estimate since it does not include cases resulting from *Chlamydia pneumoniae*. "Thus, *Chlamydia*-induced ReA represents a considerable burden on the health care systems of the U.S. and other nations, and its impact on those systems may well be significantly underrecognized," the authors state.

Most women with genital *Chlamydia trachomatis* infection have no symptoms at the time of the initial infection; this was also true of the patients in the study who had DNA evidence of *Chlamydia*. For *Chlamydia pneumoniae*, as many as 70 percent of acute infections are asymptomatic and, even when there are symptoms, definitive identification of the organism is rare. The authors point out that relying on identification of a symptomatic [infection](#) may therefore result in routine underdiagnosis or misdiagnosis of *Chlamydia*-induced ReA.

They add that because ReA is a type of SpA and patients with ReA do not present with the classic combination of symptoms of arthritis, conjunctivitis/iritis and urethritis, it is reasonable to believe that *Chlamydia trachomatis* plays a role in causing uSpA, which may in fact be ReA. They conclude that although there is no diagnostic test for *Chlamydia*-induced ReA, testing for chlamydial DNA in the synovial tissue of patients thought to have ReA may be the most accurate way of diagnosing the condition.

More information:

<http://www3.interscience.wiley.com/journal/76509746/home>

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Citation: *Chlamydia* may play role in a type of arthritis (2009, April 30) retrieved 26 April 2024 from <https://medicalxpress.com/news/2009-04-chlamydia-role-arthritis.html>

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