Hepatitis C virus infection causes rheumatoid arthritis, before HCV detection

This article which originally appeared in Bel Marra Health, discusses the connection between rheumatoid arthritis and hepatitis C virus infection, along with ways to manage it

December 28, 2015 By Emily Lunardo

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Hepatitis C virus (HCV) infection has been found to cause rheumatoid arthritis, even before HCV is detected. Hepatitis C can contribute to liver failure but is also known to cause rheumatoid arthritis – inflammation of the joints. Due to the link between HCV and rheumatoid conditions, it's important that newly diagnosed patients of rheumatoid conditions also get tested for HCV as rheumatoid conditions can still occur before HCV is even detected.

A rheumatoid disease can be caused by HCV due to a related infection. Rheumatoid diseases cause pain in the joints, muscles and connective tissue. Joint swelling and blood vessel inflammation can occur as well. A recent study dove deeper into the connection between HCV and rheumatoid arthritis and uncovered what may link the two.

Hepatitis C virus infection linked with rheumatoid arthritis: Study

In a study published in PLoS One, researchers assessed the risk of rheumatoid arthritis in patients with HCV. Patients were studied from Taiwan, which has high rates of HCV, hepatitis B virus and rheumatoid arthritis. Data was collected from one million patients and 249,460 patients were identified for analysis. The number of patients diagnosed with chronic hepatitis was 49,892.

Hepatitis C patients were compared with 199,568 control individuals who did not have HCV, matched by age, sex and calendar year. Patients did not have rheumatoid arthritis at the beginning of the study, but cases were documented as they were diagnosed throughout the course of the study.

The researchers found that chronic infection with HCV was linked to higher incidences of rheumatoid arthritis. Furthermore, men were more likely to develop rheumatoid arthritis with HCV

compared to women. Lastly, those with hepatitis C and B were at an even greater risk for rheumatoid arthritis compared to those who had each virus independently.

Hepatitis C virus, arthralgia and rheumatoid arthritis

Arthralgia – pain in a joint – is a common symptom of HCV but can often be confused with rheumatoid arthritis. If arthralgia is mistaken for rheumatoid arthritis, it can lead to liver toxicity from rheumatoid arthritis prescription drugs, so distinguishing between the two is essential. In one study, it was found that 20 percent of HCV patients suffer from arthralgia.

Although it is still unclear how exactly HCV causes rheumatoid arthritis, some mechanisms do exist that may reveal the connection. For starters, HCV may directly invade the synovial tissue, triggering an autoimmune response from the synovium, and then immune complex or cryoglobulin (a protein found in certain diseases) is deposited.

Because rheumatoid arthritis and HCV-related arthritis can present themselves so similarly, it can be quite difficult to distinguish between the two diseases. Anti-CPP antibodies make it easier to distinguish between the diseases as high levels of them are a truer signal of rheumatoid arthritis than HCV-related arthritis.

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Prevention of hepatitis C and joint pain

To prevent joint pain and arthritis associated with hepatitis C, it's essential to prevent hepatitis C. Prevention methods for hepatitis C include:

- Practice safe sex – coming in contact sexually with someone who has HCV can transmit it to you.
- Do not share needles or use illicit injectable drugs.
- Get yourself screened if you received blood transfusions prior to 1992 as there was suspicion of the virus being transmitted during that time.
- Get yourself screened if you use needles, have a tattoo, or work in a healthcare field where you are exposed to blood samples or needles.

Treatment, diagnosis of hepatitis C and joint pain

To properly treat joint pain and hepatitis C, it is best that your rheumatologist and doctor work together to provide the best treatment for both conditions when treating your liver. Medications may interact and complications may arise, so having a strong relationship and communication between the two doctors can ease any potential complications.

To treat hepatitis C specifically, a combination of antiviral and interferon drugs may be used. Protease inhibitors, too, were recently discovered to be effective treatment options for those with HCV and may help shorten treatment time, which is normally quite lengthy.

Nonsteroidal anti-inflammatory drugs (NSAIDs) can be used to treat joint pain and inflammation caused by HCV. It's important to know that many medications commonly used to treat rheumatoid arthritis may pose a risk to the liver in those with HCV, another reason why it is essential that your liver specialist and rheumatologist work together closely.

Diagnosis may be challenging as HCV may be symptomless for quite some time, and HCV-related arthritis can appear quite similar to rheumatoid arthritis. Uncovering antibodies in blood serum and running a series of blood tests can better help diagnose HCV and rheumatoid arthritis.

If you have been diagnosed with rheumatoid arthritis or are experiencing joint pain, you may want to have yourself checked for possible hepatitis C; it could end up being the underlying cause.

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Enhanced treatment for hepatitis C cuts prevalence by 80 percent

Yale researchers have found that novel antiviral therapies for hepatitis C could reduce the prevalence of the virus by 80 percent. The findings suggest that hepatitis C virus (HCV) could be eliminated within the U.S. if screening becomes enhanced and treatment is targeted to high-risk populations. Continue reading

Sources:

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