

What is a Herxheimer Reaction?

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Overview:

The herxheimer reaction, nicknamed "herx" or otherwise referred to as Jarisch- Herxheimer (J-H) is a phenomena originally observed in the treatment of syphilis, but later found in other illness. In general terms, it is described as a temporary increase of symptoms when anti-syphilitic drugs (antibiotics) are administered. What is known or speculated about Lyme disease herxheimers are based heavily on the reactions seen in syphilis. This is due to the fact both diseases are caused by a bacteria known as a spirochete, the former being *Treponema pallidum*, the latter *Borrelia burgdoferi* (B.b). However the herxheimer reactions in Lyme disease are not identical to those seen in syphilis, especially in terms of timing, frequency and duration as noted below.

In Lyme disease it is thought that the cause of herxheimers are the result of endotoxin release, that is toxin(s) within the spirochete that are released as the B.b are killed or broken down. This may be a result of the toxin(s) itself or the body's immune response to such.

Symptoms:

As mentioned, the general description is a temporary increase in symptoms, but also included is the development of new ones. More specifically the most common events include: increased joint or muscle pain, headaches, chills, fever (usually low grade), drop in blood pressure, hives and rash. A multitude of other symptoms have been described.

Worth noting is that hives and rash are sometimes mistaken for an allergic reaction. It is up to one's physician to determine this, but with close observation and the use of medications such as Benedryl often prevents stopping antibiotics prematurely. In more severe cases of J-H a reduction of the dosage or temporarily cessation of the treatment is an alternative.

Timing, Frequency and Duration:

This is individualistic and Herxheimer can occur within days to weeks after the onset of antibiotic therapy. In some patients they occur only once or twice (if at all) and with others continue throughout the course of treatment, usually lessening in severity. They can occur and are more often described in cycles (example: every 4 weeks) and have been reported to last from days to weeks.

It can be very beneficial to document these exacerbations. Some physicians use this as a guideline for treatment. Further it may help differentiate herxheimers from the normal symptoms or progression of Lyme disease.

Treatment:

Herxheimer reactions can be very difficult on patients and affect compliance with therapy so supportive measures should be sought or utilized to lessen discomfort if needed. The use of aspirin, NSAIDs (non steroidal anti inflammatory drugs), pain medication, muscle relaxers, hot baths or others remedies can be appropriate. Of note, some have found Benedryl helpful even in the absence of rash or hives.

The good news is that the herxheimer is thought to indicate that the antibiotics are indeed working and that following each worsening may bring about more improvement. However the lack of herxheimer reaction should not cause anxiety if symptoms are improving.

Other considerations:

Something often overlooked but can present with similar symptoms as a herxheimer is Candida (yeast) infection. Treatment with acidophilus and if needed prescription medications such as Nystatin or Diflucan can be utilized.

Sources of Information:



Lyme Disease 1991 - Patient/Physician Perspectives from the U.S. and Canada The Jarisch-Herxheimer Reaction James H. Katzel M.D.



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