

Herxheimer reaction

From Wikipedia, the free encyclopedia

The **Herxheimer reaction** (also known as **Jarisch-Herxheimer** or **Herx**) occurs when large quantities of toxins are released into the body as bacteria (typically Spirochetal bacteria) die, due to antibiotic treatment or rapid detoxification.

Typically the death of these bacteria and the associated release of endotoxins occurs faster than the body can remove the toxins via the natural detoxification process performed by the kidneys and liver. It is manifested by fever, chills, headache, myalgia (muscle pain), and exacerbation of skin lesions. Duration in syphilis is normally only a few hours but can be much longer, up to months or years, for other diseases. The intensity of the reaction reflects the intensity of inflammation present.

The Herxheimer reaction has shown an increase in inflammatory cytokines during the period of exacerbation, including tumor necrosis factor alpha, interleukin-6 and interleukin-8.^{[1][2]}

History

Both Adolf Jarisch,^[3] an Austrian dermatologist, and Karl Herxheimer,^[4] a German dermatologist, are credited with the discovery of the Herxheimer reaction. Both Jarish and Herxheimer observed reactions in patients with syphilis treated with mercury. The reaction was first seen following treatment in early and later stages of syphilis treated with Salvarsan, mercury, or antibiotics. It is seen in 50% of patients with primary syphilis and about 90% of patients with secondary syphilis.^[*citation needed*]

The reaction is also seen in other diseases, such as borreliosis (Lyme disease^{[5][6]} and tick-borne relapsing fever^[7]), bartonellosis, brucellosis, typhoid fever, and trichinellosis and Q fever.

References

- [↑] Vidal V, Scragg IG, Cutler SJ, *et al* (December 1998). "Variable major lipoprotein is a principal TNF-inducing factor of louse-borne relapsing fever". *Nat. Med.* **4** (12): 1416–20. doi:10.1038/4007. PMID 9846580.
- [↑] Kaplanski G, Granel B, Vaz T, Durand JM (July 1998). "Jarisch-Herxheimer reaction complicating the treatment of chronic Q fever endocarditis: elevated TNFalpha and IL-6 serum levels". *J. Infect.* **37** (1): 83–4. doi:10.1016/S0163-4453(98)91120-3. PMID 9733392.
- [↑] Jarisch A (1895). "Therapeutische Versuche bei Syphilis". *Wien Med Wochenschr* **45**: 721–42.
- [↑] Herxheimer K, Krause D (1902). "Ueber eine bei Syphilitischen vorkommende Quecksilberreaktion". *Deutsch Med Wochenschr* **28**: 895–7.
- [↑] Maloy A, Black R, Segurola R (1998). "Lyme disease complicated by the Jarisch-Herxheimer reaction.". *J Emerg Med* **16** (3): 437–8. doi:10.1016/S0736-4679(98)00011-0. PMID 9610974.
- [↑] Lawrence C, Lipton R, Lowy F, Coyle P (1995). "Seronegative chronic relapsing neuroborreliosis.". *Eur Neurol* **35** (2): 113–7. doi:10.1159/000117104. PMID 7796837.
- [↑] Dworkin M, Anderson D, Schwan T, Shoemaker P, Banerjee S, Kassen B, Burgdorfer W (1998). "Tick-borne relapsing fever in the northwestern United States and southwestern Canada.". *Clin Infect Dis* **26** (1): 122–31. doi:10.1086/516273. PMID 9455520.

Retrieved from "http://en.wikipedia.org/wiki/Herxheimer_reaction"

This page was last modified on 27 December 2008, at 07:22.