

# PET-CT Suggestive of Lymphoma but Spirochetes in Lymph Node Biopsy: Careful for Prozone Phenomenon in Syphilis

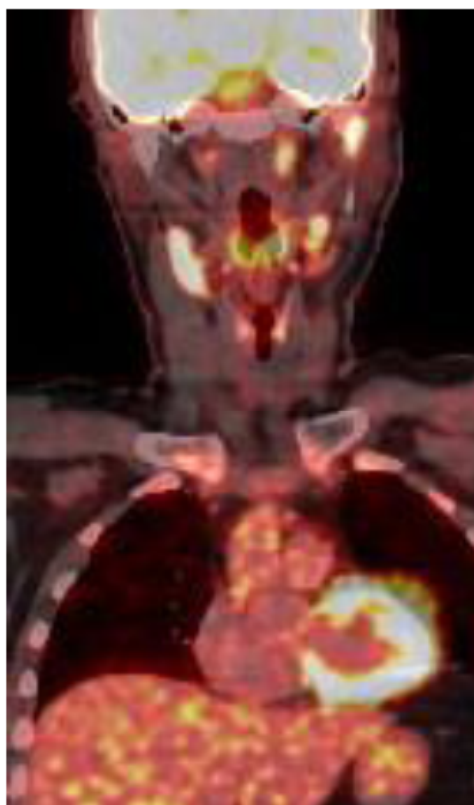
Dries Deeren<sup>1,\*</sup> and Edwin Steenkiste<sup>2</sup>

<sup>1</sup>Department of hematology; <sup>2</sup>Department of pathology, Wilgenstraat 2 B-8800 Roeselare, Belgium

## PAPER

A 38y old male presented with arthralgia, bone pain, rash, constitutional symptoms, sensory neuropathy and generalized lymphadenopathy. The Venereal Disease Research Laboratory test (VDRL) was negative. PET-CT was suggestive of lymphoma with generalized

cervical lymph node showed spirochetes (Figure 2 – spiral shaped long bacteria). Retesting for syphilis with the Treponema pallidum hemagglutination assay (TPHA) was strongly positive.

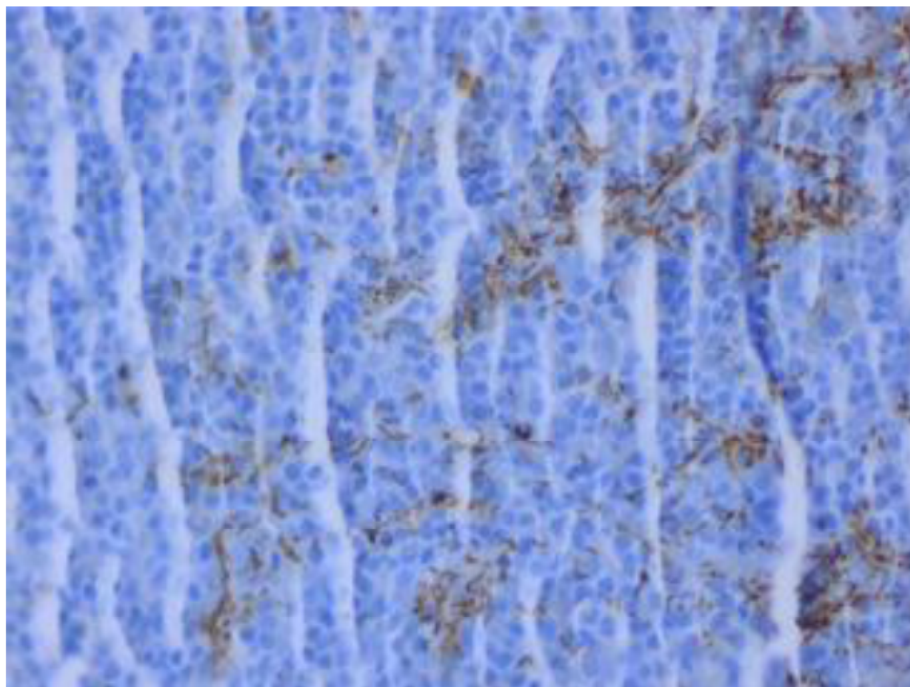


**Figure 1:** PET-CT was suggestive of lymphoma with generalized lymphadenopathy and hot spots in bone without CT abnormality.

lymphadenopathy and hot spots in bone without CT abnormality (Figure 1). Biopsy of the most PET-positive

The prozone phenomenon in the VDRL test refers to a false-negative agglutination test resulting from high antibody titers. If too many antibodies are present that can bind to the antigen, antibodies coat all antigenic sites and few or no antibodies are able to bind more than one antigenic particle. It may occur in nontreponemal tests for syphilis [1].

\*Address correspondence to this author at the Department of hematology, Wilgenstraat 2 B-8800 Roeselare, Belgium; Tel: 0032 51 237333; Fax: 0032 51 237334; E-mail: [dries.deeren@azdelta.be](mailto:dries.deeren@azdelta.be)



**Figure 2:** Lymph node biopsy showed spirochetes (spiral shaped long bacteria).

## REFERENCE

- [1] Liu LL, Lin LR, Tong ML, *et al.* Incidence and risk factors for the prozone phenomenon in serologic testing for syphilis in a large cohort. *Clin Infect Dis* 2014; 59: 384-9. <http://dx.doi.org/10.1093/cid/ciu325>

Received on 08-10-2016

Accepted on 02-11-2016

Published on 23-11-2016

<http://dx.doi.org/10.15379/2408-9788.2016.03.02.05>

© 2016 Deeren and Steenkiste; Licensee Cosmos Scholars Publishing House.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>), which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.