SYphilis and HIV: characteristics of the co-infection in patients newly diagnosed with HIV

Isabel Abreu, Pedro Palmal, Luísa Graça, Rita Filipe, Rogério Ruas, Elsa Branco, Margarida Tavares, Carmela Piñeiro, Cátia Caldas, Jorge Soares, Rosário Serrão, António Sarmento
1 - Serviço de Doenças Infecciosas do Centro Hospitalar São João

Introduction

- The reported cases of syphilis in Europe have been on the rise since 2010, specially in groups with sexual practices of higher risk, such as men who have sex with men (MSM) and sex workers. According to the most recent European data (2015), the rate of new reported cases of syphilis in Portugal was of 3 to 7 cases per 100,000 population.
- Additionally, the physiopathological interaction between the Treponema pallidum and the human immunodeficiency virus (HIV) may have direct implications in the course of the HIV if the syphilis isn’t treated, causing rises in the plasmatic levels of HIV and decrease in the lymphocyte T CD4+ count.

Objectives

- To know the frequency and stages of the disease caused by Treponema pallidum by the time of the HIV diagnosis; to identify possible risk factors for the acquisition of syphilis.
- Retrospective observational study. We reviewed all patients that were newly diagnosed with HIV in our outpatient HIV clinic between January 2015 to December 2017. In our clinic, we use the TPPA (“Treponema Pallidum Particle Agglutination Assay”) for the initial screening of syphilis. If positive, we do the VDRL test (“Venereal Disease Research Laboratory”). For discordant results, we confirm the diagnosis with FTA-ABS (“Fluorescent treponemal antibody absorption test”).

Material & Methods

- The prevalence of syphilis was of 27,2%, with a frequency that remained stable throughout the years of follow-up. The association between the syphilis diagnosis and the MSM group reinstates that we need to improve our screening tools and sensibilization campaigns in this group of individuals. Further studies in our clinic intend to see which of these patients get re-infected and if we can use the syphilis screening as a marker for risk of other sexually transmitted diseases.

Results

- Total sample size n = 217
- Negative: 145/217 (66,8%)
- Positive: 72/217 (33,2%)
- False positive: 13/217 (6%)
- Syphilis: 59/217 (27,2%)

- Previous infection: 22/217 (10,1%) 22/59 (37,3%)
- Active infection: 37/217 (17,1%) 37/59 (62,7%)

- Risk factors

- Gender
  - Male: Female
  - 60 (28%) 50 (23%)
  - 100 (46,9%) 88 (40,8%)
  - 0,21

- Age (Median ± SD)
  - 41 ± 12,3 42 ± 13,3
  - 0,871

- Risk
  - Heterosexual - MSM - Injection Drug Users - Others - Unknown
  - 145 (66,8%) 37 (17,1%) 22 (10,1%) 0 (0%)
  - 49 (25,1%) 37 (17,1%) 35 (16,1%) 0 (0%)
  - 0,04

- Initial CD4+ count (median)
  - < 200/mm³ 200-349/mm³ > 350/mm³
  - 35 (16,1%) 22 (10,1%) 99 (46,6%)

- Symptom at diagnosis
- Primary infection - Symptomatic - AIDS
  - 145 (66,8%) 37 (17,1%) 0 (0%)
  - 62 (29,2%) 35 (16,1%) 0 (0%)
  - 0,816

- Retinitis 3 (0,08%)
- Late latent syphilis 20 (54,1%)
- Neurosyphilis 3 (0,08%)
- Primary syphilis 7 (18,9%)
- Early latent syphilis 5 (13,5%)
- Secondary syphilis 1 (0,03%)

Conclusion

- The prevalence of syphilis was of 27,2%, with a frequency that remained stable throughout the years of follow-up. The association between the syphilis diagnosis and the MSM group reinstates that we need to improve our screening tools and sensibilization campaigns in this group of individuals. Further studies in our clinic intend to see which of these patients get re-infected and if we can use the syphilis screening as a marker for risk of other sexually transmitted diseases.