MOLECULAR IDENTIFICATION OF TREPONEMA PALLIDUM STRAINS FROM SYPHILITIC LESIONS IN STI CLINIC PATIENTS, LIMA, PERU.

Flores J, A1, Vargas S, K1, Leon S, R1, Konda K, A1, Chow J, Y1, Calvo G, M2, Salvatierra H, J1, Brown B1, Klauser J, D1, Caceres C, F1

1Unit of Health, Sexuality and Human Development, and Laboratory of Sexual Health, Universidad Peruana Cayetano Heredia, Lima, Peru. 2Division of Infectious Diseases, David Geffen School of Medicine, University of California, Los Angeles, CA, USA. 3Epicentro, Lima, Peru. 4Alberto Barton Health Center, Health Directorate of Callao, Lima, Peru, 5School of Public Health, University of California, Irvine, CA, USA

BACKGROUND

In Peru, syphilis disproportionally affects men who have sex with men (MSM) and male-to-female transgender women (TW) with prevalence rates as high as 30%1-2. To our knowledge, there are no available data describing circulating strains of T. pallidum in Lima, Peru. We used the CDC subtyping scheme to identify T. pallidum circulating subtypes among MSM and TW from two STI clinics in Lima, Peru.

AIM: In this study, we set out to detect the most prevalent strains of Treponema pallidum using the CDC methodology in two STI Clinics in Lima, Peru

METHODS

A cohort of 401 MSM and TW were assessed for syphilis infection at baseline and quarterly with RPR (BD Macro-Vue, USA) and TPPA (Fujirebio, Japan) testing up to 24 months. A dacron swab was used to collect exudate from chancre-like lesions and placed into 500 μL of lysis buffer. DNA extraction was performed using QiAamp mini kit (Qiagen, Valencia, CA). Using specific primers forTp47 region target, an aliquot of the DNA sample was amplified using conventional PCR. Subtyping of T. pallidum TP47 positives was performed using detection of number of 60-bp tandem repeats in the arp gene and analysis by RFLP of 3 tpr genes (TprE, G, J) according to CDC guidelines3.

RESULTS

Among 401 participants, 26 presented with primary syphilitic lesions at baseline or follow-up with RPR (TPPA confirmed) titers ranging from 1:2 - 1:64. Of those 26 total lesions, 1 (7%) of 14 tested was dark-field positive. TP DNA screening using TP47 PCR yielded 12 (44.4%) positives. Among eight typable, four were subtypes 14d (33.3%), two 15d (16.7%), one 16d (8.3%) and one 0d (16.7%) where 0 = non-typable arp

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BIBLIOGRAPHY