

**TITLE:** EVALUATION OF VDRL AND TPHA ASSAYS FOR DIAGNOSIS OF SYPHILIS IN WOMEN FROM VITORIA DA CONQUISTA (BAHIA).

**AUTHORS:** GUSMÃO, L. O.; NASCIMENTO, J.S.; MARTINS, H.B; CAMPOS, G.B.; LOBÃO, T.N.; ALMEIDA, A.L.V.; ALMEIDA, J.B.; TIMENETSKY, J.; MARQUES, L.M.

**INSTITUTION:** UNIVERSIDADE FEDERAL DA BAHIA, VITÓRIA DA CONQUISTA, BA, BRASIL.

**ABSTRACT:**

Syphilis is an infection caused by *Treponema pallidum*. The diagnosis occurs through serological tests that detect antibodies. These can be non-specific, evaluated by nontreponemal tests as Venereal Disease Research Laboratory assay (VDRL), and specific, identified by treponemal tests as Treponema pallidum particle agglutination assay (TPHA). Thus, the objectives of this study were to compare methods for serological detection of *T. pallidum* in women serum samples and identify risk factors for infection. Serum samples were collected from 299 women in the municipality of Vitoria da Conquista - BA. Through the VDRL was obtained that 124 (41.49%) were positive. In the VDRL test, 124 (41.49%) were positive. 54.03% of the samples with titers of 1: one, 19.35% with titers of 1: 2; 08.06% with titers of 1: 4; 8.87% with titers of 1: 8; 6.45% with titers of 1:16; 2.42% had titration of 1:32, and only one sample showed titer of 1:64. Regarding the TPHA assay, 14 samples were positive. Seven of these samples showed discordant results to the VDRL test. The following socio-epidemiological characteristics were observed in positive women: age between 14 and 30 years (41.14%), mixed race (57.86%) and sexually active (91.97%). Does not present stable relationship (79.26%), 10 partners or more for life (4%), three or more partners in the last 3 months (12.04%), and never having used condoms (64.21%) were infection risk factors. The high rates of positive samples for VDRL, reflect the need for confirmatory test (TPHA). However, the TPHA test detects anti-treponemal antibodies and these can be present even after the cure of the infection. In addition, it is believed that behaviors of syphilis-related risks, such as number of partners and not use of condoms are important markers of vulnerability. The women attending family health units represent a population at risk of acquiring STIs.

**Keywords:** *Treponema pallidum*. Syphilis. VDRL. TPHA.

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