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# Withering Syphilis Management

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Screening for syphilis has come down following lower prevalence of syphilis. But antenatal mothers have been screened for syphilis routinely. Occupational exposure to HIV made clinicians to rule out syphilis also. It became the customary to do HIV, HBsAg, HCV and VDRL test before any invasive therapeutic and diagnostic procedures. Out of 16 reactive RPR test reports, 5 cases are antenatal, one is blood donor and 11 cases are in inpatients admitted for various therapeutic purposes. All this 11 cases are screened for HIV, HBsAg, HCV and VDRL tests where none of them are reactive except for VDRL.

The serological testings followed in clinical practice are

1. VDRL/RPR – screening and diagnostic test when ever syphilis etiology is suspected.
2. If reactive in lower dilutions ie, 8 or less than 8 dilution, VDRL/ RPR test is repeated with *Treponema pallidum* antigen test like FTA Abs and TPHA test to rule out false positive reactions.

Serologic testing is the core strategy of syphilis screening and diagnosis where two main types of serologic tests were improved: Non-treponemal tests identify antibodies to reagin, a cholesterol-lecithin-cardiolipin antigen that cross-reacts with antibodies present in the sera of patients with syphilis. Non-treponemal tests such as the RPR test are easy to perform, sensitive and relatively cheap. In addition, treponemal tests, e.g. enzyme immunoassay (EIAs) are more costly than non-treponemal tests and can be difficult to perform [(1)]. Currently, numerous improved sero diagnostic tools are available for the control and treatment of syphilis. For example, nowadays RPR and Venereal Diseases Research Laboratory test (VDRL) reagents can be stored at room temperature. Rapid and easy treponemal tests using whole blood, serum or plasma can be stored at room temperature for six to 12 months, are cost-effective and the performance of some of these tests is comparable to laboratory tests. It is noteworthy that syphilis screening and treatment

are estimated to be the most cost-effective public health interventions in existence [2,3].

In the present days, this strategy is not followed routinely. Out of 11 cases, only 6 cases were possible to include for *Treponema pallidum* antigen test. Clinicians are reluctant to accept the fact that VDRL/ RPR reactivity because of non treponemal antibody (regain) produced in response to diseases like autoimmune disorders eta and not due to *Treponema pallidum* [2,3].

Even if *Treponema pallidum* haemagglutination assay (TPHA) is reactive only in the early infectious period they can transmit infection, not in the late stage. These facts regarding occupational exposure are forgotten. One more serious fact forgotten is, if TPHA is reactive definitely it is a case of treponemal infection. The person may not be suffering from symptoms but may be in a asymptomatic stage. Manifestations of early syphilis ie, primary and secondary lesions will heal spontaneously even without treatment, without scars. But manifestations of late syphilis are progressive and destructive [2,4]. Only treatment for syphilis will prevent further progression. Scarring will be there. Neurological damages are irreversible [4].

The case of Aortic aneurism presented with chest pain. For evaluation, X ray was taken. Ascending Aortic aneurism was diagnosed and further management was done for the patient with anti-syphilitic antibiotics (inj. procaine penicillin – 8L X 15 days). Then the patient was transferred to reference centre for the management of aneurism. The suggestions made by this case study are

1. All VDRL/ RPR reactive cases should be repeated with one treponemal antigen test
2. If treponemal antibody test is reactive, asymptomatic cardiovascular and neurosyphilis should be ruled out with appropriate investigations.
3. Low prevalence should not relax the VDRL testing for antenatal mothers still congenital syphilis cases have been reported inside and outside India.

The overall cost-effectiveness and impact of syphilis serological testing in pregnancy in low prevalence areas requires more in-depth evaluation especially in settings where funding for the most basic health care needs remains precarious. Several important questions regarding the management of syphilis remain unanswered and should be a priority for future research.

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