other STIs. Presently more than 18 000 inmates have been surveyed for HIV, HBV HVC and syphilis using the automated immunoquimioluminiscence analysis system Abbott Architect i2000. The accuracy of Abbott Architect Syphilis TP (ASTP) for detecting treated and untreated syphilis was reported before thus our study focused in validate ASTP as compared with an accepted treponemic test.

Methods For evaluatig the sensitivity and specificity of ASTP in the context of our HIV clinic we compared ASTP with a test extensively used for syphilis confirmation, Treponema pallidum haemagglutination assay (TPHA). Samples were assayed with ASTP in pools of four sera and each positive pool developed and re-assayed with ASTP to find one or more individual positive samples which were further assayed with tittered VDRL. ASTP− pools were not re-assayed and individual samples were scored as negative for syphilis. We selected 218 ASTP+ and 1920 ASTP− individual consecutive samples to be tested with BioRad Syphilis TPHA.

Results From 218 ASTP+ samples 212 were TPHA+ and all 1920 ASTP− were also TPHA−. ASTP and TPHA detected all 77 VDRL+ samples thus considered diagnostic of latent or active syphilis. Six ASTP+/TPHA− samples and 135 ASTP−/TPHA− were also VDRL− and considered as evidence of treated/cured syphilis. Using TPHA as gold standard ASTP Sensitivity was 100% and Specificity was 99.7%. In two ASTP- pools that showed more than 0.6 but <1 S/CO reading, a sample weakly positive by ASTP and TPHA but VDRL− was found when assayed individually.

Conclusions Reverting the traditional algorithm of syphilis diagnosis by first determining TP specific antibodies with ASTP followed by tittered VDRL of positive samples is highly accurate even if done in pools of four sera. This approach allows also the identification of epidemiologically valuable data of cured syphilis.

P3-S6.02 IS FOURFOLD DROP OF THE NONTREPONEMAL ANTIBODY TITRESTITRES AT THREE OR 6 MONTHS AFTER EARLY SYPHILIS TREATMENT AN EFFECTIVENESS "CRITERION?"

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P Zhou, X Gu, H Lu, Z Guan, Y Qian. *Shanghai Skin Disease Hospital, Shanghai, China*

Background At present the criteria for treatment effective in early syphilis is the disappearance of clinical symptoms and signs and four-fold decrease of nontreponemal antibody titres within 3 to 6 months after therapy. However, how to evaluate if syphilis is cured after treatment remains difficult and controversial.

Methods Secondary syphilis patients whose rapid plasma reagin (RPR) titres did not turn negative at least 24 months after treatment were enrolled in this study and their CSF were evaluated. The criteria for enrolment were: (1) RPR titres declined fourfold within 3 months after therapy for secondary syphilis; (2) patients denied high risk sexual behaviour following syphilis treatment; (3) RPR titre did not turn negative at least 24 months after treatment; and (4) HIV negative. The criteria for neurosyphilis were: (1) CSF leukocyte count was elevated, and/or (2) proteins were abnormal, and (3) a reactive VDRL-CSF test in the absence of substantial contamination of CSF with blood, and (4) a reactive TPPA-CSF test, and (5) a negative HIV test, and (6) with or without neurological manifestations, and (7) excluding other possible CNS infections.

Results There were 14 male and three female patients who met the criteria for neurosyphilis. The CSF leukocyte count was elevated in 10 patients among which nine also had CSF proteins elevated. The other three patients had CSF proteins elevated only. CSF-VDRL and CSF-TPPA were reactive in all 17 patients. There were four cases presenting notable neurological and psychiatric manifestations, and other 13 had no signs and symptoms of CNS when they entered the study. The clinical symptoms and signs disappeared or improved in four patients, and CSF-WBC in those nine patients turned to normal after treatment. CSF-protein declined accordingly but did not turn to normal in four cases see Abstract P3-S6.02 table 1.

Abstract P3-S6.02 Table 1 RPR and CSF before anti-neurosyphilis treatment

No.	Initial RPR	RPR (3 months after treatment*)	RPR (24 months after treatment*)	CSF/WB (0−8)×10^6/l	CSF/protein (150−450) mg/l	CSF/ VDRL
1	1:64	1:8	1:16	8.1↑	860↑	1:4
2	1:16	1:4	1:4	3	441	1:1
3	1:32	1:8	1:8	1.1	890↑	1:2
4	1:64	1:6	1:32	300↑	1860↑	1:8
5	1:32	1:4	1:8	3.8	1050↑	1:4
6	1:128	1:32	1:64	8.2↑	650↑	1:16
7	1:64	1:16	1:16	9.8↑	460↑	1:4
8	1:256	1:32	1:32	5.8	580↑	1:8
9	1:64	1:8	1:8	26↑	460↑	1:4
10	1:128	1:32	1:32	8.8↑	280	1:8
11	1:16	1:4	1:8	9↑	540↑	1:8
12	1:128	1:16	1:16	17↑	570↑	1:4
13	1:256	1:64	1:64	38↑	590↑	1:16
14	1:128	1:32	1:8	2.2	430	1:2
15	1:256	1:32	1:16	18.8↑	800↑	1:4
16	1:64	1:16	1:8	3.3	430	1:1
17	1:16	1:4	1:4	3	280	1:1

*Anti-secondary syphilis treatment.

Conclusions A four-fold decrease in serological titres and resolution of lesions of early syphilis may not predict success. The occurrence of failure after standard therapies suggests that the current criteria for "treatment effective" are questionable. There is a need of continuing to evaluate early syphilis patients who meet the criteria for "treatment effective" and whose nontreponemal antibody titres fail to turn negative afterwards.

P3-S6.03 SEROREVERSION OF TREPONEMAL TESTS IN CASES MEETING CANADIAN SURVEILLANCE CRITERIA FOR CONFIRMED CONGENITAL SYPHILIS

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[1]S Ameeta, [1]T Guenette, [1]J Bergman, [1]J Gratrix, [1]P Parker, [1]B Anderson, [2]S Plitt, [3]B Lee, [3]J Robinson. *[1]Alberta Health Services, Edmonton STI Clinic, Edmonton, Canada; [2]Public Health Agency of Canada, Canada; [3]University of Alberta, Canada*

Background Serologic tests for syphilis remain the mainstay of diagnosis. However, diagnosis of congenital syphilis is complicated by the passive transfer of maternal antibodies to the infant. Non treponemal test (NTT) titres should decline by age 3 months and should be non reactive by age 6 months if the infant was not infected or was infected but adequately treated. Limited data exist on the serologic outcome of treponemal tests (TT) in cases with clinical or laboratory evidence of congenital syphilis at birth.

Methods Cases meeting Canadian surveillance criteria for confirmed early congenital syphilis [within 2 years of birth] (http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/09vol35/35s2/Syphilis-eng.php) were reviewed from the Alberta Health Services Edmonton zone from 2005 to 2010. Under Alberta's Public Health Act, maternal stage, treatment information and serologic follow-up and infant clinical, laboratory and treatment information are obtained and stored in a provincial STI database.

Results 22 cases met surveillance criteria for confirmed congenital syphilis: six were either stillborn/deceased at birth, three are still