

**Conclusion** These data suggest a high burden of TV and co-infection with CT. Public health surveillance focusing on CT infection may consider routine screening of other STIs, including TV, in local populations to reduce STI morbidity.

**P3.348 MATERNAL AND CONGENITAL SYPHILIS REMAIN A CHALLENGE**

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This descriptive study set the profile of pregnant with positive VDRL followed at public maternity hospitals in Federal District, Brazil, of the newborns children of mothers with syphilis that showed clinic signs of congenital disease and verified approach according with the recommendations of the Ministry of Health. The study verified the percentage of pregnant women who had access to prenatal care and were inadequately treated and the percentage of newborns with inadequate clinical management in accordance with the recommendations of the MS. We interviewed 67 pregnant as postpartum women who reported to the National System of Disease Notification, users of five public hospitals of the DF and consulted information from medical records and from prenatal care charts, when available. The information relating to the clinical and laboratory received to the children were supplemented with data from medical records, compulsory notification forms of syphilis, from prenatal care charts and the child health card, when available. Data were collected on sociodemographic, obstetric, information related to diagnosis, treatment of pregnant and puerperal women their partners and treatment of newborns into delivery. Only 41.8% patients were adequately treatment and main reason for inadequacy was the lack of treatment (83.6%) or inadequate treatment of the partner (88.1%). The study demonstrated the need for new treatment of the mother at the hospital for lack of documentation of the treatment in prenatal care. There was disagreement with the recommendations of the MS to follow-up of newborns with congenital syphilis in relation to radiographic study only 48% children carried out and lumbar puncture was required only 42%. It was observed that 36% newborns not received any treatment. Our data demonstrates that the quality of prenatal care received by pregnant women is not sufficient to ensure control of congenital syphilis an reaching the goal of controlling the disease.

**P3.349 EPIDEMIOLOGICAL AND CLINICAL ASPECTS OF CONGENITAL SYPHILIS IN BELARUS**

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In the years 1996–2012 all together 4966 pregnant women infected with syphilis were registered in Belarus (8.36% from the general number of the women with syphilis for this period - 59426 cases). Primary syphilis was diagnosed in 13.2% of patients, secondary syphilis - 30.5%, latent early syphilis - 55.9%, latent late syphilis - 0.4%. Disease has been revealed in I trimester of pregnancy in 56.7% of patients, II trimester - 23.2%, III trimester - 17.5%, after delivery - 2.6%. 45.1% of women have made abortion after disease revealing.

There are 127 children with congenital syphilis (CS) registered in 1994–2012 in Belarus in total, but last two years cases of CS have not been registered. Among women which have given birth to children with CS primary syphilis was not diagnosed, secondary syphilis - 26.7%, latent early syphilis - 71.4%, seroresistant syphilis - 1.9%. Reinfection was registered in 8.5% of patients.

Early CS with symptoms (Table) has been revealed in 24(18.9%) of children, early latent CS - in 81.1%. Cases of late CS have not been registered. Three children have died within the first month of a life.

**Abstract P3.349 Table 1 Table-Clinical symptoms of manifest early CS in Belarus in 1994–2012 (n = 24)**

Symptom	Number of cases	%
Pathology of bones:	16	66.7
osteochondritis II-III	11	45.8
periostitis	1	4.2
gummas of bones	2	8.3
pseudoparalysis of Parrot		
Visceral pathology:	17	70.8
hepatosplenomegaly	5	20.8
hepatomegaly	9	37.5
congenital pneumonia	2	8.3
syphilitic nephritis	2	8.3
congenital heart disease	1	4.2
fibrosis of kidneys	1	4.2
fibrosis of adrenals		
Pathology of nervous system:	10	41.7
encephalopathy	3	12.5
meningocephalitis	2	8.3
meningitis	1	4.2
hydrocephalus		
Papules of skin and mucosas	10	41.7
Syphilitic rhinitis	8	33.3
Including with development of «saddle» nose	1	4.2
Syphilitic pemphigus	5	20.8
Roseola	4	16.7
Hochsinger's popular infiltration	2	8.3
Pathology of eyes:	1	4.2
syphilitic chorioretinitis	1	4.2
syphilitic uveitis		

**P3.350 EVALUATION OF A COMPARATIVE WESTERN BLOT METHOD FOR EARLY POSTNATAL DIAGNOSIS OF CONGENITAL SYPHILIS**

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**Background** Diagnosis of congenital syphilis (CS) remains difficult. Part of the problem arises because the standard serologic tests are not useful in newborns because IgG transfer across the placenta.

Since Western Blot technique allows the recognition of a specific response towards every single protein, it can be useful to compare IgG immunological profiles of mothers and babies at birth, in order to differentiate between passively transmitted maternal antibodies and antibodies synthesised by the infants.

**Methods**

**Study group.** Thirty infants born to syphilis seropositive mothers were enrolled for this study. At birth, routine serological tests were performed (ARCHITECT® Syphilis TP, Abbott; TPHA and RPR, Randox) on mother/child pairs' serum specimens.

“Home made WB”. *Treponema pallidum* antigens, separated by SDS-PAGE, were blotted onto nitrocellulose sheets and incubated overnight with mother/child pairs' serum specimens.

Criteria for CS diagnosis were the following: presence of specific bands in the newborn's IgG WB strip different from those found on the corresponding maternal WB strip and/or recognition on IgM WB strip of at least 2 out the 4 following bands Tp47, TmpA, Tp17 and Tp15, including at least one with low molecular weight.

**Results** Out of the 30 infants born to syphilis seropositive mothers, we found 3 babies with different IgG WB profiles from those of their own mothers. Two out of these three newborns had also positive IgM WB result. Routine serological testing results of all the 30 newborns showed similar values to those of their own mothers.

**Conclusion** The use of comparative IgG WB test enabled us to diagnose CS in three cases in which the infection would have not been detected by classical serology techniques. Therefore the routine use of comparative IgG WB assay at birth on newborn-mother pairs could be a welcome addition to the conventional laboratory methods used for the diagnosis of CS.

### P3.351 CONGENITAL SYPHILIS PREVENTION IN HONDURAS

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**Introduction** Honduras is a Central American country whose priority is the elimination of congenital syphilis in 2015.

**Objective** To prevent transplacental transmission of syphilis from mother to daughter/son during the gestational period.

**Materials and Methods** Descriptive retrospective analysis from January 2008 to December 2012 in 117 health units without a laboratory from the Preventive Program transmission of syphilis from mother to daughter/son that detects syphilis during pregnancy in attending antenatal women, using rapid tests for free and voluntary screening.

**Results** Year 2008 4.950 pregnant women were screened, 10 of them were reactive, with a prevalence of 0.2%, in 2009 7.285 pregnant women were screened of which 17 were reactive with a prevalence of 0.2%, in the year 2010 5.310 pregnant women were screened, 5 out were reactive with a prevalence of 0.09%, in 2011 8.343 pregnant women were screened of which 20 were reactive with prevalence of 0.2% and 2012 9.320 women were screened of which 14 were reactive with a prevalence of 0.1%.

**Conclusions** During the five years 66 pregnant women were screened with syphilis, all received treatment with their partners and were followed until delivery, of which 57 (86%) of the children born were free of congenital syphilis, 7 pregnant women have not yet reached the time birth and 1 pregnant woman did not return for follow-up service.

Screening for syphilis during pregnancy is key to preventing transplacental transmission of syphilis mother daughter/son

The free screening with rapid tests for syphilis in pregnant women in places that do not have clinical laboratories, improved the access and permitted the early capture, and were provided with timely treatment with their sexual partner.

Rapid tests for syphilis are essential tool for early diagnosis of congenital syphilis prevention.

### P3.352 PREVENTION OF CONGENITAL SYPHILIS

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Congenital syphilis in Russia is an actual problem. The number of children with this disease was respectively 2005–325, 2006–321, 2007–325, 2008–249, 2009–190, 2010–175 persons. The source of the high morbidity are pregnant women with syphilis, who didn't know about their disease before childbirth. The aim is to evaluate the importance of prevention of syphilis that is possible with the deepest analysis of health of each child. Complex inspections of 51 children with early congenital syphilis revealed that 84.3% had manifested forms.

At birth 62.7% had Apgar score below 7/8 points, 25.4% - 7/8 points, 11.8% - above 7/8 points. While in the hospital 5.9% - had

satisfactory status, 13.7%— moderately grave condition, 80.3% - critical condition, among them 54.9% - premature babies.

Clinical signs of early congenital syphilis symptoms were bone changes - 66.7%. In 19.6% of cases, the bone changes were the only specific clinical signs. The skin and mucous membranes observed in 37.3%: syphilitic pemphigus - 27.5%, infiltration of the palms and soles with desquamation krupnoplachinchatym - 7.8%, roseola - 5.9%, rhinitis - 7.8%.

Changes in the internal organs was found in 68.6%, hepatomegaly - 60.8%, hepatitis - 9.8%, splenomegaly - 39.2%, myocarditis - 2%, pneumonia - 5.9% and nephritis - 3.9%.

Damage of nervous system (specific meningitis) registered at 23.5% that is every 4th child.

All children had a hypoxic-ischemic damage of central nervous system with syndromes of depression and agitation, psychomotor retardation, perinatal encephalopathy.

Almost all of them had immaturity of the functional-and-morphological systems (lengthening period of neonatal jaundice, syndrome of respiratory disorders and nervous regulation).

Thus the syphilis infection in pregnancy increases the risk of developing specific and non-specific disorders in formation of bodies and systems of a foetus.

Moscow Center uses obtained analytical data for planning preventive measures in this target group.

### P3.353 CONGENITAL SYPHILIS IN BUENAVENTURA, COLOMBIA: DESCRIPTION OF A CASE SERIES IN A NEGLECTED PACIFIC COAST TOWN

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**Background** Syphilis in pregnant women is a world-wide health problem leading to serious adverse outcomes. Although there are strategies to prevent congenital syphilis (CS) through antenatal screening, disease burden still remains high especially in low-resourced settings. Buenaventura, a municipality in the Colombian Pacific-Coast, is endemic for gestational syphilis (GS) and accounts for the 6.6% of CS in Colombia. This study describes the CS problem in Buenaventura, giving rise to strategies that could generate positive impact in prevention of syphilis mother-to-child transmission.

**Methods** A retrospective health record review of CS patients and mothers that attended to the Buenaventura Hospital during a 7-month period, 2011, was conducted. Demographic, antenatal care (ANC), syphilis diagnosis/treatment information from GS patients, and clinical information from CS cases was collected. A descriptive analysis of the information was performed, analysed using SPSS 20.0. Study procedures were approved by CIDEIM's human subject's board.

**Results** 100 clinical records were reviewed; 89 and 92 cases met definitions for CS and GS respectively. All GS mothers lived in the municipality of Buenaventura, mainly in urban areas. The majority (80%) were affiliated to private health-care providers. Although 70% of GS mothers attended to at least one ANC visit, and 64% had at least one VDRL test, only 10% received adequate antibiotic therapy, and 2% of the partners were treated. Stillbirths and early neonatal deaths (7/82), preterm births (15/82) were the main finding in the CS population. All infants were hospitalised for intravenous antibiotic treatment.

**Conclusions** The high CS incidence in Buenaventura (7/1000 live-births), is the result of lack of appropriate ANC, which ultimately leads to failures in syphilis screening and adequate treatment. CS prevention strategies should be focused in early syphilis