## Obstetrics – Intrapartum

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Report of confirmed cases of Congenital Rubella Syndrome (according to WHO criteria) in an immunized population: Tehran, Iran

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**Background**: A safe and effective rubella vaccine is available. Rubella vaccine are used in Iran; and a routine surveillance for congenital rubella syndrome (CRS) was organized nationwide during last decade.

**OBJECTIVE**: evaluate the active CRS surveillance system in our country.

**METHODS**: In a cross-sectional study, 89 Children with suspected CRS according to WHO criteria, selected in a third referral educational hospital (Rasoul Akram hospital) in Tehran, Iran. A standard examination and a blood sample was obtained. All serum samples were tested for rubella-specific IgG and IgM by ELISA method. Selected samples (positive Rubella IgM) were tested for rubella RNA by reverse transcriptase–polymerase chain reaction (RT–PCR).

**Findings**: Overall 87% in the samples were positive for anti-rubella IgG and CRS were not the final diagnosis. Confirmed CRS (positive IgM) was found in 5% (5/89) of CRS suspected cases. Positive RT–PCR detected in 16% (1/5) of cases with positive IgM serology. Except a good correlation between abnormal neurologic findings and positive IgM in Confirmed CRS cases, other clinical findings were not related to serologic tests.

**Conclusion**: Rubella-specific IgM tests proved practical for diagnosing CRS in children aged <6 months. Further studies are needed to confirm the utility of rubella-specific RT–PCR directly on serum samples as an additional test of diagnosing CRS in our country. We recommend another mass vaccination for rubella in women of child-bearing age and continuation of routine vaccination of infants. Obligatory anti-rubella test in women of child-bearing age before pregnancy should be consider for preventing the CRS.
Prevalence of congenital Toxoplasmosis in newborns in 2 educational hospitals, Iran, Tehran.
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Department of Pediatric Infectious Disease, Iran University of Medical Sciences, Iran.

Background: Frequency and clinical manifestations of congenital toxoplasmosis in Iran is not determined.

Objective: Goal of study was to determine the frequency of neonates with positive serologic test for T. Gondii from birth and follow up the clinical manifestation of them.

Methods: This prospective study had done upon 270 neonates (gestational age = 28-41 weeks) were born in 2 educational hospital in Tehran; Rasoul akram & Akbar Abadi, (2011-2012). Cord blood sample obtained from neonates and centrifuged, transported to Research Laboratory. T. Gondii serologic test (IgG, IgM; ELISA) evaluated in serum. Neonates with positive T. Gondii - IgM treated and followed.

Finding: Positive T. Gondii - IgM and T. Gondii - IgG determined in 1.5%, 44.1% of neonates respectively. No cases had positive T. Gondii- PCR in CSF. The most common manifestation was Eye involvement (50%); and brain disorders observed in 50% of neonates.

Conclusion: The prevalence of congenital toxoplasmosis in study is 1.5 percent. Early treatment of infected neonates and wide variation of congenital toxoplasma infection in our country is so important. Adding the toxoplasma serologic tests (T. Gondii - IgM) to neonatal screening test is needed for rapid treatment and recommend strongly.
Invasive prenatal diagnosis and cell free DNA testing in women with hepatitis B.

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Objective: In hepatitis B surface antigen (HBsAg)-positive women, an invasive prenatal diagnosis (IPD), in particular chorionic villus sampling (CVS), carries a procedure-related vertical transmission risk when their viral load is high. The objective of the present study is to compare the uptake rate of IPD, amniocentesis and cfDNA testing after a positive conventional aneuploidy screening between HBsAg-positive and -negative women.

Methods: We retrospectively reviewed the women’s uptake on further testing after a positive conventional aneuploidy screening in our center from August 2010 to July 2014. IPD was publicly funded, while cfDNA testing was self-financed. With the use of Chi-square test, we compared the differences in the uptake rate of IPD and cfDNA testing between HBsAg-positive and -negative women.

Results: Of 1,398 women with a positive conventional aneuploidy screening, 78 (5.6%) were HBsAg carriers. Of these carriers, 38.5%, 38.5%, 15.4% and 7.7% opted for CVS, amniocentesis, cfDNA testing and no further testing respectively. The corresponding figures for non-carriers were 43.2%, 31.2%, 20.0% and 5.6% respectively. Overall, there was no difference in the proportion of IPD between carriers and non-carriers (p=0.619). Although the proportion of carriers who underwent amniocentesis was greater than the non-carriers, the difference was not significant (p=0.176). Of note, the proportion of non-carriers who opted for cfDNA testing was greater than the carriers though the difference was not significant (p=0.160).

There was also no difference in the miscarriage rate between HBsAg-positive and -negative women (1.3% vs. 1.0%, p=0.7401)

Conclusions: It seems that women’s uptake rate of further testing after a positive conventional aneuploidy screening was not affected by their HBsAg status. Education on the potential risks of vertical transmission after an IPD should be enhanced. We envisage the uptake rate will change after the implementation of publicly funded cfDNA testing.