

Evaluation of Perinatal and intrafamilial Hepatitis B Prevention Programs In a Well child Clinic: Nine Year Follow Up Study in Turkey

S. POLAT,¹ A.D CAMURDAN,² N. AKSAKAL,³ S. AGLADIOGLU,⁴ U. BEYAZOVA,² F. SAHIN,² A. ATAK,⁵ A. ER⁴

¹Mersin University School of Medicine Department of Social Pediatrics

²Gazi University School of Medicine Department of Social Pediatrics

³Gazi University School of Medicine, Department of Public Health

⁴Gazi University School of Medicine, Department of Pediatrics

⁵Gazi University School of Medicine, Department of Clinical Microbiology

Introduction

- *Perinatal hepatitis B prevention program is being launched since 1998 in Turkey*
- *In Gazi University Hospital prevention program includes:*
 - *screening of all pregnant woman for the presence of hepatitis B antigen, antiHbs and antiHBc antibody*
 - *administration of HBIG to the infants of HBsAg(+) mothers and vaccination at birth, 1st and 6th months of age.*
 - *postvaccination serotesting between 9-18 months of age*
 - *screening of the siblings .*

Aims

- *Evaluating the performance of well child clinics on adhering the recommended perinatal hepatitis B prevention programs,*
- *Assessing the outcome of infants living with HBsAg-positive parents.*
- *Evaluate the hepatitis B antigen status of siblings*

Study design and subjects

- Retrospective study
- Among 13361 infants who applied to Gazi University Well Child Clinic between 2001-2009.
 - 336 infants (2.5%) having at least one HBsAg-positive parent included
- The rates of passive and active immunization and postvaccination serotesting analyses were evaluated.

Results

- Initiation of hepatitis B vaccination was 100% and rate of passive immunization was 98,7% in the infants of the HBsAg-positive mothers.
- Of the 336 infants, 92 (27.3%) were lost before completing the primary immunization.

Results

- Remaining 244 infants were given full doses of hepatitis B vaccine,
- 30 infants who were born in 2009 were still too young for serotesting,
- 20 infants could not be serotested either due to neglect or moving to another city after completing primary immunization,
- The recommended perinatal HB prevention program could be performed successfully in 194 infants (63.4%).

Results

- Parents of the eligible (n=194) infants:
 - the mothers were HBsAg-positive in 89 (45.9 %)
 - the fathers were HBsAg-positive in 100 (51.5 %) cases
 - in 5 (2.6%) cases, both of the parents were HBsAg-positive

Post vaccination serotesting

- 171 infants (88.9%) were seroprotected.
- 23 infants' antiHBs levels were below 10IU/L, and these infants had been applied second 3-dosed series of HB immunization.
- One infant became HBsAg-positive (%0.51)

- The anti-HBs levels were found to be increased if the carrier was the father. ($p=0.0001$)
- There was negative correlation between serotesting time and anti-HBs titers. ($r=-0.416$, $p=0.0001$)

Seroprotection in siblings

- Of the 187 siblings, 65.7% were serotested after completing primary immunization.
- Six siblings (4.9%) were found to be HBsAg positive
- Nine siblings (7.3%) were seronegative and revaccinated
- 87.8% were seropositive

Discussion

- The HBsAg positivity of the referenced families was 2.5% and compatible with the intermediate endemicity in Turkey.
- Functional analyses of our service:
 - As administering hepatitis B Immunoglobulin is 98.7% and starting hepatitis B vaccination is 100% to infants of HBs Ag positive mothers ***current immunoprophylaxis practice is seems to be enough*** in our clinic.

- But the ***serotesting*** rates after completing the primary hepatitis B vaccine protocols of the susceptible infants and their siblings were still ***inadequate***
- To increase the performance on the subject collobration of the sector of delivery, pediatrics and informing the families properly is needed.

- families should be informed clearly
- given the responsibility for completing the vaccination protocols
- remembered the serotesting time of their babies.

- Face to face interviews
- Giving brochures
- Putting some information in vaccination cards
could be effective ways...

Thank you very much