Background and Aims Seroconversion of HBeAg to anti-HBe is associated with lower viral load and liver diseases. The purpose of this study was to assess the seroconversion rate of HBeAg to anti-HBe in children who acquired HBV infection during childhood period.

Methods From September 1990 to December 2010, 139 HBeAg positive children were followed up. Eighty-one subjects were failure of Hepatitis B immune globulin (HBIG) and hepatitis B vaccination at birth and 58 children < 10 years who were born before 1990 and did not receive HBIG and vaccine. HBsAg, HBeAg, anti-HBs and anti-HBe was assessed every six months.

Results Sixty two (44.6%) cases were males and 77 (55.4%) were females. Mean duration of follow-up was 12.6±6.6 years. Twenty-four (17.3%) mothers were HBeAg positive and 115 (82.7%) anti-HBe positive. Eighty-two (59%) children became anti-HBe positive. Seroconversion rates in the first, second and third decades were 25%, 63.4% and 70.5%, respectively (p=0.001). The children of anti-HBe positive mothers had higher seroconversion rate than the HBeAg positive mothers (75% versus 33.9%, p=0.0001). Time to seroconversion rates in children born to HBeAg positive mothers was similar to those born to anti-HBe positive mothers (HR=1.03, p=0.975). Time to seroconversion rates in children who received hepatitis B vaccine and HBIG was higher than those who did not (HR=6.35, p=0.0001).

Conclusions HBeAg seroconversion in the second and the third decades were higher than the first decade. Children born to anti-HBeAg positive mothers and those who received HBIG and hepatitis B vaccine had higher seroconversion rates.

Background The vaccine has been in use since 1969. In December 2003, during mass camp vaccination for Measles/Rubella vaccination in Iran, about 38 million doses of vaccine were administered to the 5–25 yrs old people. This serological survey was conducted to evaluate the effectiveness of Rubella vaccine after Syrs of mass camp in mothers and their neonates.

Methods This was a historical-Cohort study has been done in September (2009–2010). Study population was 180 women (20–30 yrs old) who referred for pregnancy routine care. All pregnant were at 18–25 weeks gestation, women of age’s mothers.

Results Sixty two (44.6%) cases were males and 77 (55.4%) were females. Mean duration of follow-up was 12.6±6.6 years. Twenty-four (17.3%) mothers were HBeAg positive and 115 (82.7%) anti-HBe positive. Eighty-two (59%) children became anti-HBe positive. Seroconversion rates in the first, second and third decades were 25%, 63.4% and 70.5%, respectively (p=0.001). The children of anti-HBe positive mothers had higher seroconversion rate than the HBeAg positive mothers (75% versus 33.9%, p=0.0001). Time to seroconversion rates in children born to HBeAg positive mothers was similar to those born to anti-HBe positive mothers (HR=1.03, p=0.975). Time to seroconversion rates in children who received hepatitis B vaccine and HBIG was higher than those who did not (HR=6.35, p=0.0001).

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