

## Rubella vaccination in pregnancy and serologic situation of infants

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### Abstract

**Background & Objective:** Rubella vaccine is prepared with live virus thus if it injects during abstinence period, it can cause fetal risks. The aim of study was to evaluate rubella IGM among infants of women who were vaccinated against rubella during 3 months pre-or post-conception (abstinence period).

**Materials & Methods:** This cohort study was done on 253 mothers, including 116 mothers as cases and 137 mothers as controls. The case group inadvertently had received MR vaccine (RA27/3) during abstinence period. The control group selected randomly from similar delivery center that admitted for delivery. The background and confounding factors was matched between the control and case groups. In both groups after delivery, cord rubella IGM was measured by ELISA for serological diagnosis of infant infection. Data was analyzed by Chi-square and T-student tests.

**Results:** The findings showed that the number of positive IGM infant was similar in both groups (One positive IGM in each group). In spite of no significant difference between the case and the control groups, the maximum theoretical risk in this study was 4.392% (RR=1.091; 95% CI=0.271-4.392).

**Conclusion:** Although no significant difference was found from the point of infants with an IgM<sup>+</sup> serology in two groups, according to the risk ratio obtained in this study, we still recommend vaccination should be avoided during abstinence period.

**Key Words:** Rubella vaccine, Pregnancy, Congenital Rubella Syndrome (CRS), MR vaccine, Rubella IgM

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