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Study on the Seroepimiology of Rubella in Individuals Referred to 5 Diagnostic Laboratories of Central Part of Rasht , Iran

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Background & Objectives: Rubella is a contagious infective disease with mild clinical presentation. Infection in pregnant women specially in first trimester results in congenital rubella in fetus that is one of the common causes of mortality and morbidity in newborn. Immunization to Rubella is not yet routine , so immunization level of this disease is an importance issue must be considered more in all population. The aim of this study is studying on immunity level of population referred to 5 diagnostic Laboratories of central part of Rasht, Iran.

Methods: this study in an investigation on titers of antibodies to rubella (IgG , IgM) using ELISA assay. blood samples are taken randomly from 300 individuals who referred to 5 most referred diagnostic Laboratories of central part of Rasht, Iran. All sera are stored in freezer and examined simultaneously by ELISA to measure IgG and IgM .

Results: Seroprevalence of IgM in studied group was 4% and seroprevalence of IgG was 85% seroprevalence of IgM was more in men (83.3 %) and in age groups under 30 years old (50.0 %). About 50.0% of IgM positive sera are belonged to individuals with high school education or less. Twenty nine of 300 sera was IgG negative. Seronegativity to IgG was 51.7 % in men , 57.9 % in undergraduate individuals and 45.0 % in age group under 20 years old.

Conclusion: This study showed that immunity level to rubella in studied population was 85.0%. Regarding to no routine vaccination of rubella , this is significant. It might be due to high level of social and health knowledge of studied group. Frequency of IgG seronegativity was similar in men and women and is more in low educated persons indicate to positive effect of educational level and healthcare knowledge. Higher seroprovalence of IgG in lower age group (45.0 % in ≤ 20 years old) is indicative of lower immunity level in teen age group and showed that vaccination is a serious issue must be more considered .

Keywords: Rubella; ELISA; Seroepidemiology