Seroprevalence of Rubella Virus Infection Among Pregnant Women Attending Some Antenatal Clinics in Jigawa State

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Abstract:

Rubella, caused by the rubella virus, is an acute infectious disease posing a significant global public health challenge, particularly in developing nations where it annually results in 100,000 cases of congenital rubella syndrome (CRS). Despite its impact, there is limited data on rubella virus infection in the study area. This study aimed to assess the seroprevalence and molecular detection of the rubella virus among pregnant women attending some antenatal clinics in Jigawa State. The study, conducted as a cross-sectional, hospital-based analysis, involved 170 pregnant women. Socio-demographic information and risk factors were collected using a structured questionnaire. Blood samples were tested for Rubella virus IgG and IgM antibodies using enzyme-linked immunosorbent assay (ELISA). Data analysis was performed using SPSS version 20.0 for Windows. The study revealed an overall rubella IgM prevalence of 24.1% and a 94.7% prevalence of rubella IgG antibodies among the participants. The result of the study showed no statistical relationship between Rubella virus infection and socio-demographic parameters and risk factors. However, a relationship was observed between rubella virus infection and white blood cell (WBC) count, while no relationship was found with packed cell volume (PCV) and hemoglobin levels. The high prevalence of rubella virus among pregnant women underscores the importance of public awareness campaigns for prevention and control strategies to mitigate the disease's impact on morbidity and mortality.

Keywords:

Rubella virus, Seroprevalence, Pregnant women, Jigawa State.