

عنوان مقاله:

Study of Immune Response in Infants of Non-Gestational Diabetic Mothers

محل انتشار:

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خلاصه مقاله:

Background Infants of diabetic mothers (IDMs) have significantly greater risk for spontaneous abortion, stillbirth, congenital malformations and perinatal mortality and morbidity but whether maternal DM affects the neonatal innate immune system is unknown. We aimed to assess the immune response of infants of diabetic mothers (IDMs) with non-gestational DM for Hepatitis B vaccine and to compare them with those of healthy mothers. Materials and Methods At a prospective case control study in Minia University Hospital for Children, 150 neonates were included in this study; divided into 2 groups, Group I included 75 infants of diabetic mothers (IDMs) and Group II: Included 75 apparently healthy infants of apparently healthy mothers. These neonates received Hepatitis B virus vaccine during the first 24 hours of age and at 1 and 6 months of age, Hepatitis B virus surface antibodies, Hepatitis B virus envelope antibody (HBe Abs), and Hepatitis B core antibody (HBc Abs) were measured at 9 and 12 months of age. Results Results showed that at 9 months of age, Hepatitis B surface antibodies (HBs Abs) titers were significantly higher in healthy neonates compared to IDMs group ($p < 0.001$); while at 12 months of age they were comparable ($p = 0.118$). Negative correlation between HBs antibodies levels at 9 months and Aspartate Aminotransferase (AST), Alanine Transferase (ALT), Glycated Hemoglobin (HbA1c) and the duration of maternal diabetes ($p < 0.001$). Conclusion According to the results, delayed immune response for hepatitis B vaccine was present in infants of non-gestational diabetic mothers compared to healthy neonates reflecting the effect of diabetes on the immune response of IDMs. .They became immune at 12 months of age while normal healthy neonates became immune at earlier age

کلمات کلیدی:

Diabetic, Egypt, Infants, Immune response, HB vaccine

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