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Acta Medica Iranica
2009;47(4) : 103-108

Original Report

Comparison of Group B Streptococcal Colonization in the Pregnant Diabetic and Non-Diabetic Women

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Received: February 2,2007
Accept : November 12,2007

Abstract:

- To Compare colonization of group B streptococcus (GBS) in diabetic and non-diabetic pregnant women. In this prospective study 50 pregnant women with diabetes mellitus (both pregestational and gestational) and 43 pregnant women without diabetes between 33 and 37 weeks' gestation were evaluated. Three samples for Group B streptococcal culture detection were obtained from each subject in the following order: perinea sample, vaginal sample, and an anorectic sample. All had singleton gestations, negative tests for human immunodeficiency virus, and intact membranes at enrollment. Pearson chi-square and fisher, Exact test were used when appropriate. Most common site of GBS colonization in all women was vagina (11.8%). Colonization of group B streptococcus in control group included vagina (7%) perineum (0.3%) and rectum 0.3%) and in diabetic group included vagina (16%) perineum (16%) and rectum (16%). Although comparison was shown higher vaginal colonization rate in diabetic group (16% versus 7%) but difference was not significant (P=0.154).The prevalence of group B streptococcus colonization in gestational diabetes was 20% and higher than pregestational diabetic women. Among women with pregestational diabetes, the prevalence of group B streptococcus colonization was 15% in non-insulin dependent diabetic women and 10% in insulin dependent diabetic women (P> 0.05). Comparison between two groups showed high rectal colonization in diabetic group and difference was significant (P= 0.027). Pregnant diabetic patients have higher carriage rates of group B streptococcus (GBS) in rectum than non-diabetic pregnant women and diabetes is a risk factor for group B streptococcus colonization during pregnancy.

Keywords:

Group B streptococcus ، diabetic pregnant women ، non-diabetic pregnant women ، vaginal colonization ، perinea colonization ، rectal colonization

TUMS ID: 12768

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