

Role of HLA system in gestosis pathogenesis

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There are a lot of researches devoted to the HLA role in the reproduction process including its role in gestosis pathogenesis. It has been proved HLA complex genes participation in immune mechanisms of pregnancy maintenance.

The objective of the research was to study the role of the system of the main complex of histocompatibility in gestosis development and reveal a correlation between HLA system and severity of gestosis.

Materials and methods: 30 pregnant women (average age 30.3 years) were examined at 24-38 weeks of gestation and divided into the following groups: I-st group (group of risk)-8 pregnant women with the history of gestosis of different degree of severity including 6 patients with perinatal losses; II-nd group (the main group)- 17 pregnant women with gestosis of different degree of severity (8 patients with mild gestosis, 5 with moderate and 4 with severe gestosis); the history of perinatal losses had 5 of them. III-rd group (group of compare) included 5 women with uncomplicated pregnancy. HLA- typing was done by the molecular method of polymerase chain reaction (laboratory of clinical immunology). HLA-typing of alleles of the II class locuses (HLA-DR,DQ) has been performed.

Results: in the examined pregnant women were found alleles: DR-B1: *01,*04,*07, *08, *11(05),*12(05),*13(06)03, *14, *15, *17(03), *16. DQ-1040;1:0101, 0102, 0103, 0201, 0301, 0401, 0501, 0601. DQ-B1: 0201, 0301, 0302, 0303, 0304, 0401/02, 0501, 0502/4, 0503, 0601, 0602-8. In general we have detected 30 alleles from 178 known (WHO, 1999). 12 women from the I and II groups (5 from the Ist and 7 from the II nd) had in the genotype DQ-A10501, 5 of them (20%) had the history of severe gestosis, and the patient homozygous in locus DQ-A10501 8211; eclampsia. 8 women (32%) had DQ-B1 0201, among them 3 (12%) had preeclampsia in previous pregnancy and 2 (8%) antenatal death. 7(28%) women (1 from the I-st and 6 from the II-nd group, accordingly) were the bearers of DR-B1*07, 6(24%) women (1 and 5,accordingly)- DR-B1*11(05). 5(20%) from the II-nd group had DQ-1040;1 0103. Some locuses were found not often in the researched women; eg DR-B1*12(05) was recorded only in 3 women (12%) from the Ist group, one of them had the history of eclampsia and postnatal fetal death, two of them had preeclampsia and perinatal losses. DQ-B1 0201 was noticed in 4 women (16%) (2 of them from the Ist and 2 from the II nd group), 3 of them had preeclampsia in anamnesis.

Conclusions: Based on the above stated there is a certain correlation between the beginning and severity of gestosis and presence or absence of certain HLA system antigens

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