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TITLE

THE EXPRESSION OF SPECAM-1 AND SVCAM-1 IN THE GENESIS OF GESTATIONAL ENDOTHELIOPATHY

AUTHOR/S

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ABSTRACT

CONTEXT: Gestational endotheliopathy (GE) is thought to play a role in preeclampsia (PE) and the control of smooth muscle tone through release of vasoconstrictor and vasodilatory substances. The spiral artery abnormalities, due to GE, have been reported in the placental bed of women with GE in the absence of clinical manifestation. Evidence of GE as an early event in PE suggests that it is a possible cause, but not a result, of the pregnancy specific disorder. However, it includes changes in expression of cell adhesion molecules.

OBJECTIVE: The purposes of present study were to examine of expression of PECAM-1 and VCAM-1 in preeclamptic patients.

METHODS: Prospective, controlled study.

PATIENT(S): 34 preeclamptic patients, 34 patients with GE, 20 healthy pregnant women, and 16 non-pregnant healthy women were as control group.

INTERVENTION(S): Soluble PECAM-1 (sPECAM-1) and VCAM-1 (sVCAM-1) in serum were compared between groups.

MAIN OUTCOME MEASURE(S): Serum sPECAM-1 and sVCAM-1 concentrations.

RESULTS: The expression of sVCAM-1 (2230,3±375,1 ng/ml) for preeclamptic patients was significantly higher compared with the pregnant women with GE but without PE (1108,1±217,6 ng/ml), healthy pregnant women (874,0±73,7 ng/ml), and non-pregnant (690,7±66,7 ng/ml) women. Serum levels of sPECAM-1 for PE (63,8±6,4 ng/ml) were significantly lower compared with the healthy pregnant (91,6±5,3 ng/ml) women, but similar range for pregnant women with GE-without PE was 78,6±4,9 ng/ml, that has statistical reliability only for healthy pregnant women.

CONCLUSIONS: GE was associated with increased of expression of sVCAM-1 and decreased of sPECAM-1 in serum in comparison with physiological pregnancy. sVCAM-1 and sPECAM-1 may be will represent as new potential molecular markers of endothelial dysfunction during pregnancy.

INSTITUTE

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