

THE PROPHYLACTICS OF ENDOTHELIAL DYSFUNCTION IN PREGNANT WITH HYPERTENSIVE DISORDERS AND COEXISTING PATHOLOGY

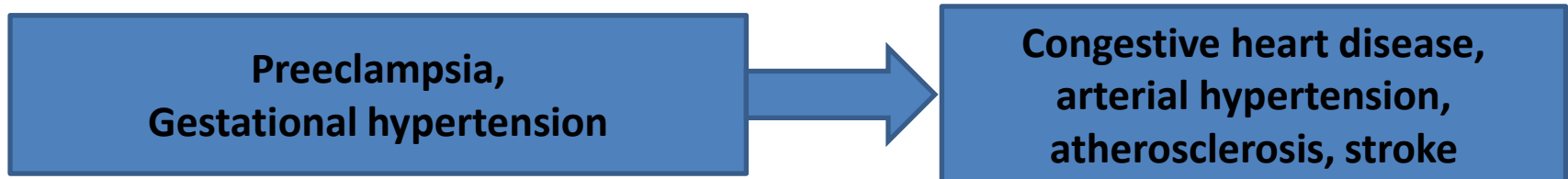
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INTRODUCTION

Endothelial dysfunction

- potential predictor of the wide range of the pathology states during pregnancy
- potential predictor of pregnancy-associated cardio-vascular diseases in future life in women with previous hypertensive disorders of pregnancy



TARGET

To evaluate the concentration of endothelial progenitor cells (EPC) in pregnant with hypertensive disorders and coexisting pathology before and after the supplement of the scheduled prophylactics and treatment with the L-arginine

Study design

Group 1:

- **22 pregnant with SLE**
- **20 pregnant with CHD (congenital heart disease) with hypertensive disorders of previous pregnancy**
- concentration of CD34+, CD45+
- sFlt/VEGF ratio in 11 weeks of gestation
- Besides the scheduled prophylactics of preeclampsia and basic treatment in this group 1 we implemented the L-arginine in doses regulated for cardiac patients
- **Group of comparison - 18 pregnant with the same pathology (SLE-10, CHD-8) and previous gestational hypertensive disorders without L-arginine.**

sFIT/VEGF ratio	EPC before complex therapy+L-arginine Group 1	EPC after complex therapy +L-arginine Group 1	EPC before routine prophylactics Comparison group	EPC in 45 days after start of routine prophylactics Comparison group
unfavorable	2,24±0,03	5,72±0,04 p<0,001	2,27±0,02	3,1±0,03 p>0,05
favorable	3,7±0,02	4,9±0,03 p>0,05	3,5±0,04	4,8±0,02 P>0,05

Obstetric and Perinatal Outcomes

	SLE (L-arg+)	SLE (L-arg-)	CHD (L-arg+)	CHD (L-arg-)
Full-term delivery	20/22 90,9%	5/10 50% p<0,01	18/20 90,0%	6/8 75,0% p<0,05
CS	8/22 36,3%	5/10 50,0% p<0,05	12/20 60,0%	4/8 50%
Assisted vaginal deliveries	-	1/10 10,0%	1/20 5,0%	2/8 25,0% p<0,01

PERINATAL OUTCOMES

SGA and IUGR newborns

group 1 – 0

group of comparison – 16,6%

Apgar score <7 points

group 1 – 0

group of comparison - 27,7%

Outcomes

- the early prediction of hypertensive disorders in pregnancy allows to implement the complex prophylactics with L-arginine (Tivortin, Yuria-pharm, Ukraine) supplementation
- the positive influence on the endothelial function allows to obtain the favorable results in control of the hypertension in high risk groups
- this resulted in the reduction of the obstetric and perinatal outcomes (reduction of preterm deliveries, abdominal deliveries, assisted vaginal deliveries)