Prevalence of inherited thrombophillia in severe OHSS

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INTRODUCTION

Inherited thrombophilia consist of a group of disorders presenting with increased tendency to thrombosis. Includes protein C and protein S deficiencies, resistance to activated protein C (factor V Leiden mutation), mutation of prothrombin G20210A and polymorphism in the methylentetrahydropholat reductase gene (MTHFR 677T). Aim of the study was to determine the prevalence of markers of inherited thrombophillia among women with severe OHSS (ovarian hyperstimulation syndrome).

MATERIAL AND METHODS

Women undergoing controlled ovarian hyperstimulation for IVF complicated by severe OHSS (group A, n = 30), women undergoing ovarian hyperstimulation for IVF without development of OHSS (group B, n = 20), healthy pregnant women with no history of sterility (group C, n = 196). Blood samples were analysed for markers of inherited thrombophillia.

RESULTS

Leiden mutation (heterozygot) was presented in study group A in 6 patients (6/30) in comparison with control groups B (1/20, p=0,27) and C (10/196, p=0,01). The polymorphism of MTHFR 677T gene was detected in 12 patients (heterozygot) from group A, in 7 patients from group B (heterozygot - 6, homozygot - 1) and in 91 patients from group C (heterozygot - 84, homozygot - 7). None of the patients from groups A, B and C had inherited protein C, protein S deficiency or prothrombin G20210A mutation.

CONCLUSION

We found statistically significant increased prevalence of factor V Leiden mutation in Czech infertile women with severe OHSS. These findings suggest the increased risk of development of OHSS in these patients and also a possible contribution of thrombophillias in development of sever form of OHSS.

	Study Group - A n = 30	Control Group - B n = 20	P	Odds ratio
APC resistance	11/19	4/16	0,37	2,31 (0,61-8,7)
FV Leiden mutation	6/24	1/19	0,27	4,7 (0,52-42,9)
MTHFR 677 heterozygot	12/18	6/14	0,67	1,55 (0,47-5,18)
homozygot	0/30	1/19	0,84	not estim.

	Study Group - A n = 30	Control Group - C n = 196	P	Odds ratio
FV Leiden mutation	6/24	10/186	0,01	4,65 (1,55-13,93)
MTHFR 677 heterozygot	12/18	84/105	0,80	0,83 (0,38-1,82)
heterozygot	0/30	7/105	0,35	not estim.

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