Inherited Thrombophilia and Hormonal Contraception

A.D. Makatsaria, N.V. Dolgushina, V.O. Bitsadze, M.A. Djangidze

Chair of Obstetrics and Gynecology of Medical Academy, Moscow, Russia

Despite the essential improvement in modern low-dose oral contraception the absolute elimination of thromboembolic complications was not succeeded. The research of new and most prevalent forms of hereditary thrombophilia (factor V/Leiden mutation, prothrombin mutation G20210A, MTHFR C677T mutation etc.) in the 90th contributed to modern understanding of above-mentioned complications pathogenesis. The purpose of this study was to investigate the pathogenesis of thrombotic complications in women who received oral contraceptives of II and III generations (Mercilon, Cilest and Tri-Regol).

39 women were selected from 409 who received oral contraceptives of II and III generations for the purpose to find the genetic forms of thrombophilia. In this group 34 had clinical manifestations of thrombophilia as arterial and venous thrombosis, vision deterioration and migraine. 5 women had only laboratory signs of thrombophilia. Methods of hemostasis investigation included detection of D-dimer, LA and anticardiolipin antibodies. Detection of genetic thrombophilias was performed by PCR method.

Genetic causes of thrombophilia were detected in 15 patients: 10 had FV Leiden mutation, 1 had MTHFR mutation, 2 had combined thrombothilia (FV Leiden and MTHFR mutation) and 2 had prothrombin mutation. Furthermore 70% from 39 patients had antiphospholipid antibodies (APA). And APA circulation was combined with genetic forms of thrombophilia in 4 patients.

The concealed forms of thrombophilia (genetic and combined with acquired) are extremely negative for modern low-dose contraceptives use. We recommend to study the familial thrombotic history during oral contraception and obstetric hystory of patients (habitual abortion, severe gestosis, etc.). In the presence of suspicious anamnesis it is advisable to perform special screening tests of blood-clotting system.