

---

## SERUM LIPOPROTEIN CHANGES IN WOMEN OVER THE AGE OF 35 YEARS USING COMBINED ORAL CONTRACEPTIVES

---

Tarasova M.A., Soukhorukova A.V., Bodul A.S.

I.P.Pavlov Medical University, D.O.Ott Institute of Obstetrics & Gynecology, St.-Petersburg, Russia

*The reduction of steroid dose has led to the increase in safety of combined oral contraceptives (COCs) use. Since then modern "low-dose" formulations of COCs have been widely recommended not only for young women but also for women of late reproductive age.*

**Objective:** *To evaluate the effect of two COC formulations (30 g ethinylestradiol with 300 g norgestrel and 20 g ethinylestradiol with 150 g desogestrel) on serum levels of lipoproteins and apoproteins in women over the age of 35 years.*

**Methods:** *45 women within the age interval of 35-49 years were enrolled in the study. Measurement of lipoproteins and apolipoproteins-A1 and apolipoproteins-B was performed at the commencement of the study and after 6 cycles of COCs use.*

**Results:** *There was a significant reduction in serum cholesterol and LDL-cholesterol levels in both groups. The coefficient of atherogenesis was decreased in both groups as well. There was a significant increase in HDL and apoprotein-A1 serum levels in women who used COC with 20 g ethinylestradiol and 150 g desogestrel ( $1,77 \pm 0,15$  and  $1,40 \pm 0,11$  mmol/l;  $p < 0,05$  and  $2,37 \pm 0,14$  and  $1,87 \pm 0,15$  g/l;  $p < 0,05$  respectively). No increase in triglycerides was detected in this group ( $1,46 \pm 0,19$  and  $1,45 \pm 0,15$  mmol/l).*

**Conclusions:** *COC formulation with 20 g ethinylestradiol and 150 g desogestrel has more beneficial effect on antiatherogenic lipoprotein profile as compared to COC formulation with 30 g ethinylestradiol and norgestrel as a progestagen component.*

---

## EFFECTS OF COMBINED ORAL CONTRACEPTIVES ON HEMOSTASIS IN WOMEN OF LATE REPRODUCTIVE AGE

---

Tarasova M.A., Ryabceva I.T., Grigorieva V.A., Shapovalova K.A.

I. P. Pavlov State Medical University, St.-Petersburg, Russia

**Objective:** *to investigate the effects of combined oral contraceptives (COCs) on hemostasis in women of late reproductive and perimenopausal age.*

**Methods:** *64 women within the age interval of 35-49 years were accepted to the study. Three different formulations of COCs were used: 20 g ethinylestradiol with 150 g desogestrel, 30 g ethinylestrad with 150 g desogestrel and 30 g ethinylestradiol with 300 g norgestrel. 13 different parameters of hemostasis including resistance to activated protein C (APC resistance) and presence of Lupus anticoagulant were evaluated at the commencement of the study and after 2 and 6 cycles of COCs intake. The presence of Lupus anticoagulant was detected using tissue thromboplastin inhibition test. Test for identification of the factor V Leiden mutation based on polymerize chain reaction (PCR) was performed as well.*

**Results:** *There was a significant reduction of APC-ratio in heterozygous carriers of factor V Leiden as compared to women without this mutation ( $2,1 \pm 0,1$  and  $2,7 \pm 0,1$ ;  $p < 0,01$ ). The presence of lupus anticoagulant was identified more frequently in women with the factor V Leiden mutation using COCs ( $p < 0,01$ ). There was a significant reduction of APC-ratio in these women as well ( $1,7 \pm 0,1$  and  $2,1 \pm 0,1$ ;  $p < 0,01$ ). APC resistance was diagnosed in 3,1% of the participants without the factor V Leiden mutation before the treatment and in 14,1 % - after COCs use ( $p < 0,05$ ). The prevalence of APC-resistance was higher in COC users with Lupus anticoagulant as compared to those without this anticoagulant (25,0% - 8,7%;  $p < 0,05$ ).*

**Conclusions:** *Apparently APS-resistance and Lupus anticoagulant may be involved in the development of thrombophilia associated with COC use.*