

Review Article

Hormonal Contraception: New Insights on the Risk of Venous Thromboembolism

Vasiliki Adamopoulou,

Student, Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparta, Greece

Ioanna Vgenopoulou,

Student, Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparta, Greece

Konstantinos Hatziveis, MD, PhD

Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparta, Greece

Correspondence: Vasiliki Adamopoulou, Department of Nursing, University of Peloponnese, Sparta, Greece

E-mail: vasiliki_adams@hotmail.com

Abstract

Introduction: Women using oral hormonal contraceptives are exposed to an increased risk of venous thromboembolism. The incidence of venous thromboembolism in women is difficult to quantify but figures suggest it is in the range of 2 per 10,000 women in 1 year. However, it causes significant cause of morbidity and mortality.

Aim: This study aims to provide a comprehensive overview of the risk of venous thrombosis in women using oral hormonal contraceptives.

Methods: Extensive literature search in the electronic database “Pubmed”, “Google Scholar”, the website of the center for Disease Control and Prevention (CDC) and in scientific journals via search engine. There was a time restriction, the last fifteen years. Exclusion criteria of articles were articles related to the other side effects of hormonal contraception. Finally, 47 articles were included in the study.

Results: Use of hormonal contraceptives increases the risk of venous thrombosis, especially in women with a similar predisposition. Epidemiological studies have shown that combined oral contraceptives increase the risk of venous thromboembolism significantly. The progestogen-only pills are not associated with an increased risk of venous thromboembolism. Thus, the risk of venous thrombosis of oral contraceptives is dependent on the dose of ethinylestradiol and the type of progestin. The risk is increased during the first year of their use or when restarting after a break of at least one month. Risk factors for venous thrombosis can be genetic or acquired, permanent or transient, such as current or previous venous thrombosis, family history, known thrombogenic mutations, post-pregnancy use, obesity, smoking, surgery and other conditions leading to immobilization.

Conclusions: The management of women taking hormonal contraceptives should include disclosure of risk factors to prevent events related to thrombosis and with other harmful situations generally.

Key Words: Contraception, contraceptives, estrogens, progestogens, venous thromboembolism, risk factors.