



# Combined Hormonal Contraceptive Usage in Women With COVID-19

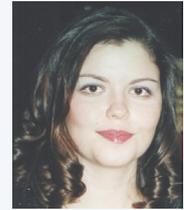
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COVID-19 caused by SARS-CoV-2 virus is a disease affecting all the world as a pandemic. This new coronavirus causes various health problems like pneumonia, acute respiratory distress syndrome (ARDS), myocardial dysfunction, kidney injury, gastrointestinal diseases, and ocular symptoms (1,2). It also causes a systemic inflammatory response and activates the coagulation cascade in affected patients after binding to angiotensin-converting enzyme 2 (ACE-2) receptors on endothelial cells (3).

Combined hormonal contraceptives (CHCs) containing varying doses of estrogens and progesterone have a potential risk of increasing thrombosis (4). The relative risk of venous thromboembolism (VTE) in combined oral contraceptive (COC) users is three-to-five-fold (5). Some studies revealed that the risk of thrombosis is lower with second-generation oral contraceptives using norgestrel or levonorgestrel than the third-generation ones using desogestrel and gestodene as a progestin (6). The risk of VTE might be higher in unclassified oral contraceptives containing drospirenone and cyproterone acetate (7). However, the unwanted pregnancies occurring when such contraceptives are discontinued are associated with a much higher risk of VTE (4.29-fold compared to the non-pregnant women) (8). Therefore, the family planning counseling for CHC usage in the patients with COVID-19 should be able to give a satisfactory answer to the question whether it is safe or not.

Various Spanish scientific societies evaluated this hot topic to guide the women with COVID-19 using CHC. According to their recommendations, in the patients with COVID-19 admitted to the hospital, CHC should be discontinued and a low molecular weight heparin (LMWH) be initiated at the prophylactic dose. If the patient's condition is not serious and CHC is used for reasons other than contraception, a switch to progestogen-only contraceptives (POCs) and adding a prophylactic LMWH is logical. In severe cases or ones treated in the intensive care unit, the dosage of LMWH

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should be increased according to the hospital protocol. In the women with mild COVID-19 symptoms and treated at home, CHC may be continued or switched to a POC or a non-hormonal contraceptive method. CHC should be withdrawn and a prophylactic LMWH be added in the patients with pneumonia or persistent respiratory symptoms and treated at home. If a contraceptive method is required for these women, POCs or non-hormonal contraceptive methods may be used together with a prophylactic LMWH. If the mildly symptomatic women with unconfirmed COVID-19 diagnoses require hormonal contraception, CHC may be continued or POCs can be used instead. If the patient has persistent respiratory symptoms and treated at home, CHC should be withdrawn and a prophylactic LMWH is initiated. If a hormonal contraception is essential for these patients, POCs or non-hormonal contraceptive methods may be advised with prophylactic LMWH (9).

As a conclusion, continuing to use combined hormonal contraceptives or switching to an alternative contraceptive method and adding an LMWH should be tailored to disease severity in the women with COVID-19 avoiding unplanned pregnancies.

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**Ethical Issues**

Not applicable.

**Conflict of Interests**

The author has no conflicts of interest to disclose.

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