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## Correspondence

### Contraceptive advice during COVID-19 pandemic and the overlapping threat of venous thromboembolism



Dear Editor,

Contraception appears to be an essential component of reproductive health care in that it improves women's reproductive autonomy and reduces unintended pregnancies. Despite the unequivocal benefits of contraceptive agents, there is a slight increase in the risk of venous thromboembolism (VTE) associated with them. This risk becomes even more concerning in the context with COVID-19 pandemic, where the disease itself may predispose the patients to both venous and arterial thrombosis, due to excessive inflammation, platelet activation, endothelial dysfunction, and stasis [1]. Thus, it becomes crucial to review the current literature to have guidance on contraceptive advice during COVID-19 pandemic (Table 1).

According to ACOG recommendation, telemedicine facilities should be used to screen, counsel and manage complications related to oral contraceptives. Wherever possible, long-acting reversible contraceptives (LARC) like the insertion of IUDs or contraceptive implants, and permanent contraception should be offered. Oral contraceptives can be advised if LARC methods are unavailable, as a bridge to delayed insertion. ACOG also recommends postponing routine LARC removals, if possible [2]. There is evidence suggesting that VTE risk increases in direct proportion to the number of predisposing factors. This increase in cumulative risk becomes even more concern in those affected with COVID-19. Current guidelines are in agreement to recommend that VTE risk stratification should be done for hospitalised

patients with COVID-19. Spanish guidelines state that women with confirmed COVID-19 admitted to hospital should withdraw COC and start low-molecular-weight heparin (LMWH) at prophylactic doses. For those with confirmed COVID-19 with mild symptoms who are undergoing treatment at home, it is recommended that they can continue COC but are advised to switch to progestin-only methods for the presence of any additional risk factors [3]. French recommendations from the National College of Teachers of Medical Gynecology acknowledge the fact that there is a delay (6–8 weeks) in return of coagulation profile to the baseline after discontinuation of COC. So it states that it is not reasonable to change the COC due to changes in the underlying coagulation because of this delay in returning to baseline. However, it further states that the addition of LMWH could help women with symptomatic COVID19 and will be benefited from this [4].

The decision to switch from COC to another alternative form of contraception should be taken after considering the facts that discontinuation of oral COC requires at least two months to restore coagulation parameters and the strong protection it offers to avoid unwanted pregnancy which itself is a hypercoagulable state in addition to its other adverse aspects [4]. Moreover, Estrogen is believed to have a protective role in the setting of a SARS-CoV-2 infection by regulating the expression of the angiotensin-converting enzyme 2 (ACE2), in differentiated airway epithelial cells [5].

Adoption of Contraceptive method is a life-saving measure, and women should receive their preferred method of contraception. The switch of contraceptive methods should be decided based on various factors like the presence of risk factors of VTE, the severity of COVID-19 etc. Further studies are needed to better guide contraception counselling during this pandemic.

**Table 1**

Current recommendations of hormonal contraception with the background of COVID-19 and risk of Venous thromboembolism [3,4].

Recommendations
1. Women should not be encouraged to withdraw contraception unless they want to get pregnant.
2. For those with confirmed COVID-19 with mild symptoms who are undergoing treatment at home, it is recommended that they can continue COC but are advised to switch to progestin-only methods for the presence of any additional risk factors.
3. Risk stratification of VTE in COVID-19 women who are not hospitalised should be done, to look for other VTE risk factors; to define the severity of COVID-19 impairment; evaluate the benefit-risk ratio of the prescription of preventive anticoagulant treatment, and to specify the type of hormone treatment.
4. Women with confirmed COVID-19 admitted to hospital should withdraw COC and start low-molecular-weight heparin (LMWH) at prophylactic doses.
5. The decision to switch from COC to other alternative forms of contraception should be taken after considering the facts that discontinuation of oral COC requires at least 2 months to restore coagulation parameters and the strong protection it offers to avoid unwanted pregnancy.

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**Ethical statement**

This article does not contain any studies with animals performed by any of the authors.

**Declaration of Competing Interest**

The authors report no declarations of interest.

**References**

- [1] Connors JM, Levy JH. Thromboinflammation and the hypercoagulability of COVID-19. *J Thromb Haemost* 2020, doi:<http://dx.doi.org/10.1111/jth.14849>.
- [2] COVID-19 FAQs for obstetricians-gynecologists, gynaecology. American College of Obstetricians and Gynecologists; 2020. Available from: <https://www.acog.org/clinical-information/physician-faqs/covid-19-faqs-for-ob-gyns-obstetrics>.
- [3] Ramírez I, De la Viuda E, Baquedano L, et al. Managing thromboembolic risk with menopausal hormone therapy and hormonal contraception in the COVID-19 pandemic: recommendations from the Spanish Menopause Society, Sociedad Española de Ginecología y Obstetricia and Sociedad Española de Trombosis y Hemos. *Maturitas* 2020;137:57–62.

- [4] Collège National des Enseignants de Gynécologie Médicale; L'Unité d'Hémostase Clinique de Cochin. Prévention du risque thromboembolique veineux chez les femmes COVID + non hospitalisées utilisant un traitement hormonal (Contraception, Traitement hormonal de ménopause, Tamoxifène). 2020 [Internet] [cited 2020 May 30]. Available from: <http://www.cngof.fr/coronavirus-go-cngof/aperçu?path=HEMOSTASE%2B-%2BRISQUE%2BDE%2BMTTE%252FHemostase-PreventionMVTECOVIDHormones.pdf&i=36239>.
- [5] Stelzig KE, Canepa-Escaro F, Schiliro M, et al. Estrogen regulates the expression of SARS-CoV-2 receptor ACE2 in differentiated airway epithelial cells. *Am J Physiol Lung Cell Mol Physiol* 2020;318(6):L1280–1.

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## Is suction curettage an effective treatment alternative for cesarean scar pregnancies? Letter to the Editor



Dear Editor:

We read the paper by Bağlı İ et al. [1] regarding suction curettage (SC) for the treatment of cesarean scar pregnancy (CSP) with great interest. The authors conclude SC may be considered as a first line therapy for CSPs, and in patients complicated with hemorrhage, foley balloon tamponade can be used easily. However, as far as we know, there are still a few questions need to be discussed.

Due to the low incidence and too many treatment methods, there is no recognized optimal first-line therapy for CSP [2]. Even for the same treatment method, the success rates reported by different studies are various [2,3]. The main reasons for those differences are as follows. First, CSP can be divided into different types which have different treatment risks. Second, the treatment methods are not uniform. For example, many studies did not well distinguished SC, dilatation and curettage, and vacuum aspiration [2]. Third, the definition of treatment complications and success rate is different.

Initially, due to insufficient knowledge of CSP, SC was often used as the first-line therapy for CSP. Subsequently, more and more studies have found that SC has a high risk of serious complications such as hemorrhage and hysterectomy in the treatment of CSP [2]. In the systematic review by Birch Petersen K et al. [3], through the integration of data from 21 case series (243 CSPs), it found that the complication rate of dilatation and curettage for CSP was 21 %, and 53 % of cases required additional treatment. In some subsequent systematic reviews and meta-analysis, SC is often not recommended as a first-line therapy for CSP [2,4].

Although the success rate of SC for CSP was as high as 86 % (31/36) in the study of in Bağlı İ et al. [1], it has the following drawbacks. First, the treatment failure simply means that the case needs additional treatment without considering important indicators such as perioperative bleeding. Second, the value of foley balloon tamponade in SC is undervalued. The indication for adopt of foley balloon tamponade in the study was intractable persistent bleeding after SC, and eventually used in 63.9 % (23/36) of the cases. This not only indicates that the treatment of CSP with SC alone has a high risk of hemorrhage, but also suggests that SC

combined with foley balloon tamponade should be more reasonable for CSP. Third, the sample size of the study is too small. Of the five patients who failed treatment, four were type II CSP, but there is no statistically significant difference.

The latest guidelines of the Society for Maternal Fetal Medicine for CSP indeed suggest ultrasound-guided vacuum aspiration be considered for surgical management of CSP [2]. However, the level of evidence for this recommendation is GRADE 2C. Furthermore, the guidelines also clearly point out that sharp curettage alone should be avoided for the treatment CSP [2]. In fact, no single treatment method is suitable for all CSPs. The choice of CSP treatment should be individualized according to its type, local myometrial thickness and gestational age, et al. [4,5]. It is obviously inappropriate to recommend a certain treatment method as the first-line therapy of CSP.

In conclusion, there is no one treatment method suitable for all CSPs, and each treatment option has its indications. The existing evidence is not enough to recommend SC as the first-line therapy for CSP. Only some carefully selected CSPs can be treated with ultrasound-guided vacuum aspiration combined with foley balloon tamponade.

**Declaration of Competing Interest**

The authors report no declarations of interest.

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**References**

- [1] Bağlı İ, Bakır MS, Doğan Y, Erdem S, Taşın C, Demirel NU, et al. Is suction curettage an effective treatment alternative for cesarean scar pregnancies? *Eur J Obstet Gynecol Reprod Biol* 2021;258:193–7.
- [2] Society for Maternal-Fetal Medicine (SMFM), Miller R, Timor-Tritsch IE, Gyamfi-Bannerman C. Society for Maternal-Fetal Medicine (SMFM) consult series #49: cesarean scar pregnancy. *Am J Obstet Gynecol* 2020;222:B2–B14.
- [3] Birch Petersen K, Hoffmann E, Riffbjerg Larsen C, Svarre Nielsen H. Cesarean scar pregnancy: a systematic review of treatment studies. *Fertil Steril* 2016;105:958–67.
- [4] OuYang Z, Wu J, Zhong B. Society for Maternal-Fetal Medicine Consult Series for cesarean scar pregnancy: each treatment option has its indications. *Am J Obstet Gynecol* 2021;224:134–5.