

mortality. Further investigations are required to validate our hypothesis and to help for the establishment of guidance concerning the use of biologics during SARS-CoV-2 infection.<sup>7</sup>

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F. Benhadou,\*  V. del Marmol

Dermatology Department, Erasme Hospital, Université Libre de Bruxelles, Brussels, Belgium

\*Correspondence: F. Benhadou. E-mails: farida.benhadou@erasme.ulb.ac.be; dr.farida.benhadou@gmail.com

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## SARS-CoV-2 possible contamination of genital area: implications for sexual and vertical transmission routes

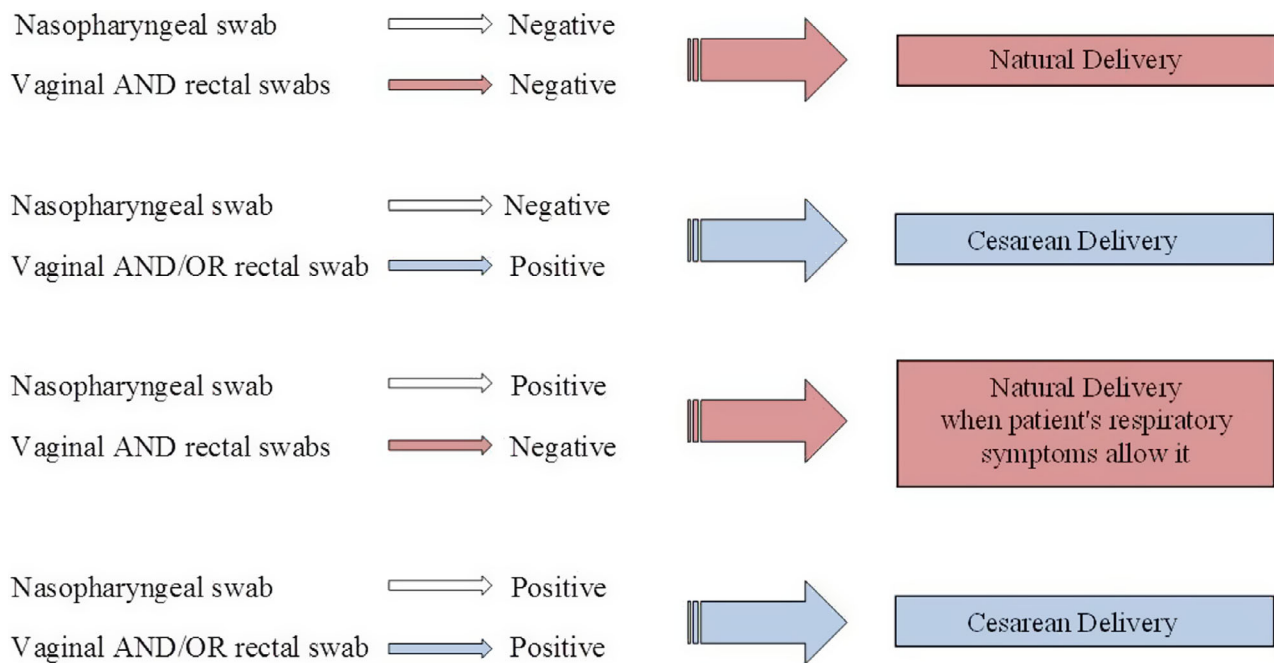
To the Editor

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is responsible for a pandemic that is causing thousands of deaths worldwide. The virus can be transmitted from person to person, directly or indirectly, via the respiratory, oro-faecal and probably sexual routes.<sup>1</sup> The eventual vertical transmission route is still poorly explored. However, mother-to-child SARS-CoV-2


transmission through the placenta probably does not occur, or likely occurs very rarely.<sup>2</sup> All the studies conducted on COVID-19 pregnant women involved patients undergoing caesarean section, but the indications for such delivery modality were not clearly stated. Rather, according to the actual recommendations, the choice of the type of delivery should be based on the usual obstetric indications, as there is no clear benefit of delivery via caesarean in COVID-19 women.<sup>3</sup> Nevertheless, it is unclear whether SARS-CoV-2 transmission can happen during vaginal birth. The collaboration between venereologists and gynaecologists is priceless in the management of pregnant women affected with infectious, sexual transmissible disease, as known in case of genital herpes, condylomatosis or gonorrhoea.<sup>4</sup> So, given the lack of clear indications to guide physicians in choosing the delivery modality during COVID-19 pandemic, we propose a decision algorithm that takes into account the possible SARS-CoV-2 routes of transmission (Fig. 1). Thus, we recommend to perform routinely reverse transcription polymerase chain reaction (RT-PCR) assays for SARS-CoV-2 detection at least on three swabs in each patient: nasopharyngeal, vaginal and rectal. Even in absence of respiratory symptoms, fever or personal history of contacts with established COVID-19 cases, all pregnant women should be tested for SARS-CoV-2 infection. However, the nasopharyngeal swab cannot be sufficient to exclude the infection. Indeed, COVID-19 patients can persistently result positive on rectal swabs even after nasopharyngeal testing negativization.<sup>1</sup> Then, a rectal swab should be always carried out. Moreover, if SARS-CoV-2 can be detected in the faeces, it is necessary to consider the possibility of a perineal contamination, including the vulvar–vaginal area. So it appears clear the need to perform a vaginal swab too. Notably, if the nasopharyngeal, vaginal and rectal swabs resulted all negative for the virus, a serological test could also be carried out in case of strong clinical suspicion. To the best of our knowledge, no study has been conducted to evaluate the presence of SARS-CoV-2 at rectal level in pregnant women, whereas very few studies have researched the virus in the vaginal fluid at or after caesarean delivery in COVID-19 women, without detecting the virus.<sup>5</sup> Thus, we suggest to choose the caesarean delivery in case of positivity for SARS-CoV-2 on vaginal or rectal swab, whereas the natural delivery could be permitted if both vaginal and rectal swabs test negative for the virus (Fig. 1). Natural delivery has several advantages over caesarean section, including less chance of maternal bleeding, infection and mortality and lower risk of future placental insertion pathologies. The main purpose of our algorithm is to allow, where possible, the natural childbirth during the COVID-19 pandemic. More studies are needed to clarify SARS-CoV-2 transmission routes in order to further support physicians in the obstetric management of pregnant women in COVID-19 era.

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**Figure 1** Decision algorithm proposal for the obstetric management of pregnant women during COVID-19 pandemic.

M. Delfino,<sup>1</sup> M. Guida,<sup>2</sup> A. Patrì,<sup>1,\*</sup>  L. Spirito,<sup>3</sup> L. Gallo,<sup>1</sup> G. Fabbrocini<sup>1</sup>

<sup>1</sup>Department of Clinical Medicine and Surgery, Section of Dermatology, University of Naples Federico II, Napoli, Italy, <sup>2</sup>Department of Neurosciences, Reproductive and Odontostomatological Sciences, Section of Gynecology and Obstetrics, University of Naples Federico II, Napoli, Italy, <sup>3</sup>Department of Neurosciences, Reproductive and Odontostomatological Sciences, Section of Urology, University of Naples Federico II, Napoli, Italy

\*Correspondence: A. Patrì. E-mail: patriangela.ap@gmail.com

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## Histologic features of long-lasting chilblain-like lesions in a paediatric COVID-19 patient

Dear Editor,

Since the beginning of the pandemic of coronavirus disease 2019 (COVID-19), an increasing number of skin manifestations have been reported.<sup>1,2</sup> Most reports concern adult patients and describe various patterns of skin eruptions, in most of cases with low specificity and no univocal temporal association with the onset of systemic symptoms of COVID-19.<sup>1–3</sup>

Recently, few papers describe chilblain-like lesions (CLL) as a possible skin clue of COVID-19 among young patients and children, mostly in the absence of systemic symptoms and with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) swab negativity.<sup>4–8</sup> This observation is consistent with the atypical outbreak of CLL reported in high endemic COVID-19 Italian regions among paediatric and dermatological networks.<sup>6</sup>

We hereby report a case of an adolescent boy with a reverse transcriptase (RT)-PCR-confirmed COVID-19 who developed long-lasting CLL.

A 16-year-old boy presented to our emergency room with multiple asymptomatic erythematous-oedematous, partially eroded, macules and plaques on dorsal aspects of the fingers