Comment of the potential risks of sexual and vertical transmission of Covid-19 infection

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Dear Editor,

We read with interest the case series of ten women with confirmed severe COVID-19 pneumonia admitted to an Intensive Care Unit in Wuhan, China from February 4 to 24, 2020 [1]. Among them, no evidence of genital infection by SARS-CoV-2 in vaginal fluids was reported.

In our initial case series of three COVID-19 laboratory confirmed patients (2 male and 1 female), a 65 year-old female subject travelling from Wuhan city during January 2020 was tested for SARS-CoV-2 also in the vaginal fluid. After two previous negative results, vaginal swab was positive by real time reverse transcriptase-polymerase chain reaction on days 7 and 20 from symptoms onset with a cycle threshold of 37.2 and 32.9, respectively. She was on oral lopinavir /ritonavir (400/100 mg twice per day) from day 4 of illness and on intravenous compassionate use remdesevir (200 mg loading dose on day 1, plus 100 mg daily for the following days) from day 5. All the other collected vaginal samples were negative.

Moreover, in nine female patients who underwent a caesarean section, no evidence of vertical transmission was observed [2]. In six out of nine women, SARS-CoV-2 was not detected in amniotic fluid, cord blood, neonatal throat swab, and breastmilk samples. However, samples from vaginal secretions were not collected.

Although the transmission of SARS-CoV-2 through genital secretion has not yet been established, and our results are limited to molecular detection only, we support the indication to caesarean section to reduce the risk of vertical transmission at delivery. Further investigations are needed to understand both clinical and epidemiological implications of this virological finding.

None of the authors has any potential conflicts to disclose.

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