

The influence of SARS-CoV-2 on semen parameters of infected infertile male in comparison with those that noninfected

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Abstract

Background: Coronavirus disease (COVID-19) is an infectious disease caused by SARS COV-2 that has spread globally, the virus can cause different pathological alterations in many organs, such as the lung, kidney, and testis. The study aimed to determine the effect of COVID-19 on the seminal fluid parameters of infected infertile males compared with those who are noninfected.

Methods: The study was performed in Al-Hussein Teaching Hospital during the period from September to November, 2021 and it involved 318 patients. The patients' info included age, address, and vaccination. The sperm count, activity, and morphology were detected using Computer-assisted semen analysis CASA (Microptic-Spain) according to the WHO manual.

Results: There were high significant differences between the infertile males who were infected with COVID-19 and those who were vaccinated ($X^2 = 12.509$, $p = 0.001$). A high significant relation ($p < 0.001$) was recorded between types of infection severity and volume of semen ($p < 0.001$) and nonprogress life sperm (C) ($p < 0.001$). While significant differences were shown in the moderate progression sperm (B) ($p = 0.012$), and morphology ($p = 0.02$), respectively. High significant differences were reported between the types of infection severity (count of the sperm, presence of pus, B, C and D), ($p < 0.001$), while a significant difference was shown between severity types in relation to A and morphology of the sperms ($p = 0.021$ and 0.015), respectively.

Conclusion: The severity of COVID-19 has a significant impact on infertility and sperm parameters, particularly progression and sperm morphology, despite the fact that these parameters are unrelated to vaccination.

KEYWORDS

COVID-19, inflammation, male fertility, semen, testis

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