

9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Poster Presentations

P-34

COVID-19 and male infertility

Mosleh H, Shabani R, Mehdizadeh M, Moradi F.

Department of Anatomical Sciences, Faculty of Medicine,
Iran University of Medical Sciences, Tehran, Iran.

Email: Shabani.r@iums.ac.ir

Background: Lately in 2019, a new type of coronavirus (Sars-CoV-2) was identified in China. SARS-CoV-2 may damage male reproductive tissues and cause infertility.

Objective: Despite the rare information in the literature on the relation of coronavirus diseases in the productiveness of humans and animals, it is important to be conscious about the effect of the coronavirus disease 2019 (COVID-19) pandemic on male fertility.

Materials and Methods: We searched on PubMed and Google Scholar databases in June 2020 to find papers and studies about COVID-19 and its effects on fertility. The search on PubMed found 98 papers and on Google Scholar found 224 papers. We exclude the papers which their titles or abstracts were not relevant.

At last, we select the most related papers to use in this article.

Results: Reports recognized that COVID-19 is closely related to the cells that secrete the angiotensin-converting enzyme 2 (ACE2). ACE2 is one of the enzymes involved in the renin-angiotensin system and is widely secreted in several tissues, for example, testis tissue; and organs that have a high expression of ACE2 are volunteers for infection. Analyses showed that in testicular cells, such as spermatogonia, seminiferous duct cells, Sertoli, and Leydig cells, there is a high expression level of ACE2.

Conclusion: Male infertility is an important problem, so scientists are evaluating if the ACE2 in the Covid-19 pandemic can influence male fertility. To date, there is no evidence if the SARS-CoV-2 virus uses ACE2 receptors in the reproductive system and what, or any affect this can have on human infertility. Although, side effects of COVID-19 pandemic can influence on infertility too, like drugs that use for treatment, chemical disinfectants, and psychological disorders.

Key words: COVID-19, Sars-CoV-2, ACE2, Infertility.