

New focus on COVID-19 infection and the future of human reproduction

Singapore, Saturday 1 May: A review of global research of the impact of the COVID-19 on human fertility suggests males are more susceptible than females to reproductive tract infection from the virus.

A summary of international studies on the effect of COVID-19 on fertility was presented today at the 10th Congress of the Asia Pacific Initiative on Reproduction (ASPIRE). The ASPIRE Congress, originally to be held in the Philippines, is being presented in virtual format – <https://aspire2021.cme-congresses.com> – to more than 100 countries because of ongoing concerns about COVID-19.

Associate Professor Virgilio Novero, a specialist in reproductive medicine at the University of the Philippines, Manila, presented an overview of latest research findings relating to COVID-19 patients and reproduction.

It is known that the protective effect of ACE2, an enzyme receptor on the surface of many cell types, is disrupted by the COVID-19 virus. The ACE2 receptor plays a protective role in the regulation of bodily functions including cardiovascular, renal, central nervous and reproductive systems.

Associate Professor Novero said while some studies among males infected with COVID-19 found no evidence of the virus in their testes or sperm in acute or recovery phases, another study involving 50 male patients showed 15 per cent tested positive for the virus in their semen.

“It has been concluded from preliminary studies that the testis may be a potential target for COVID-19 infection and that this may result in testicular damage and dysfunction causing a decline in fertility,” Associate Professor Novero said.

“Three available studies on the presence of COVID-19 in vaginal fluid of women each returned negative results. The systemic effects of COVID-19 infection may be more detrimental factors to female fertility and pregnancy than direct infection of the reproductive tract.”

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International organisations including ASPIRE, the European Society of Human Reproduction and Embryology, the American Society for Reproductive Medicine and the Australian and New Zealand Society of Reproductive Endocrinology and Infertility have each issued advice to patients regarding fertility treatment and COVID vaccines.

In the early stages of the pandemic it was recommended that new IVF treatment cycles be suspended to help arrest the potential spread of the virus.

However, studies have revealed that suspended treatment of women seeking assisted reproduction because of the pandemic had resulted in a significant negative impact on health and quality of life.

Associate Professor Novero said large international studies were required to better understand the full impact of COVID-19 on male and female reproductive systems.

He cautioned that there were still many unknowns including whether sexual transmission of COVID-19 is possible, emerging COVID-19 variants, the safety of COVID-19 vaccines for women who are pregnant or breastfeeding and strategies to prevent viral transmission in IVF laboratories to safeguard against COVID-19 contamination of embryos.

“These issues may have a bearing on future human reproduction,” Associate Professor Novero said.

**Interview: Professor Virgilio Novero is available for interview.
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