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The Probable Impact of the SARS COV-2 Omicron Variant on Male Fertility

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Abstract

Rapid spread of COVID-19 pandemic and fast developing variants of it, increase attention to this mysterious disease. Omicron is most dangerous variants of COVID-19, it influences man fertility and escape from most of immunization methods. In this article we discussed the role of copper and chromium in induction of this variant and who they guide it to affect male fertility. Experimental work recommended to test this hypothesis.

Keywords: Omicron Variant of COVID-19; Male Fertility; Sperm Morphology; Copper; Chromium

Introduction

On Nov 25, 2021 a new SARS-CoV-2 variant of concern (VoC), omicron, was recognized. Omicron appeared in a COVID-19-exhausted world in which anger and disappointment with the pandemic are common among prevalent negative effects on social, mental, and economic wellbeing. While earlier VoCs appeared in a world in which natural immunity from COVID-19 infections was common, this fifth VoC has emerged at a time when vaccination is rising in the globe [1]. This review aims to discuss the influence of the Omicron variant of COVID-19 on men's fertility and we used our hypothesis about the origin of COVID-19, which fortunately supports the impact of the omicron variant on the male reproductive tract and the subsequent risk of infertility.

Discussion

MNM Hamad [2] hypothesized that cadmium and lead are responsible for mutation of influenza virus into COVID-19, and nickel and chromium are responsible for emergence of Omicron variant of coronavirus [3].

Researchers found that omicron variant of coronavirus altered semen parameters, certainly sperm count and motility [4].

Study done by Babaei H., *et al.* [5] showed that exposure to copper has the deleterious effects on morphometrical structure of testes of rats, Roychoudhury S and his colleagues [6] found that copper toxicity influence the spermatozoa motility, morphology and membrane integrity.

Study done by Li Y., *et al.* [7] showed that Copper values also displayed a negative correlation with normomorph sperm rate and Cr

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values displayed a significant negative correlation with total motility and normomorph sperm rate.

Abdel-Moneim A [8], hypothesized that COVID-19 virus invade testes through the angiotensin-converting enzyme 2 receptor. Cadmium and Lead can increase the arterial blood pressure by affecting the endothelial renin-angiotensin system [9] and ease invasion of testes by both copper and chromium existed inside Omicron variant.

Researcher found that Influenza may affect the sperm quality and the integrity of sperm DNA [10].

All of the above mentioned information supported the hypothesis of which talked about the role of heavy metals and influenza in emergence of Omicron [2,3].

Conclusion

We conclude that Cadmium and lead synergized with copper and chromium and enable them to invade testes and alter the spermatogenesis. We suggest that this theoretically supports our hypothesis about the origin of COVID-19 and we recommend the experimental studies for confirmation.

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