Can men's increased susceptibility to COVID-19 be attributed to transmembrane protease serine 2?

¿La mayor susceptibilidad de los hombres a COVID-19 se puede atribuir a la proteasa transmembrana de serina 2?

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By participating in SARS-CoV-2 coronavirus S protein cleavage, transmembrane protease serine 2 (TMPRSS 2) favors the entry of the virus into the host cell. Given the existence of a receptor element that responds to androgens in the promoter of the gene that encodes it, TMPRSS 2 has been proposed to constitute a factor in men's increased susceptibility to COVID-19.^{1,2} In spite of the above observations, prior to supporting this position, at least two phenomena related to this proteinase should be taken into account:

- TMPRSS 2 expression can also be stimulated by estrogens.³
- No differences have been observed between men and women in TMPRSS 2 expression on lung epithelium.⁴

The larger number of immune system regulatory genes on the X-chromosome, angiotensin-converting enzyme different expression between men and women, as well as social and cultural factors, should also be taken into consideration.

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Date of reception: 21-07-2020

Date of acceptance: 27-07-2020

DOI: 10.24875/GMM.M20000446

Gac Med Mex. 2020;156:475

Contents available at PubMed

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