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ANALISIS DEL PROCESO INFLAMATORIO EN COVID -19

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Resumen

La pandemia de COVID-19 nos ha llevado a muchos a quedarnos en casa, donde mantenemos menos interacciones sociales y hacemos menos ejercicio. Esto puede tener consecuencias negativas para la salud física y mental. A continuación ofrecemos recomendaciones para que usted y su familia se mantengan sanos en casa durante este periodo de confinamiento. La enfermedad causada por el nuevo coronavirus (COVID-19) se caracteriza por presentar fiebre y tos, afectar el tracto respiratorio inferior y estar asociada con la edad, comorbilidades y un sistema inmune debilitado. Típicamente se ha evidenciado linfopenias en los casos graves y una desmedida producción de citocinas inflamatorias (tormenta de citocinas), lo que explicaría el rol de la respuesta hiperinflamatoria en la patogénesis de la COVID-19. Las respuestas inflamatorias secundarias por reinfecciones del virus podrían inducir el aumento o la mejora dependiente de anticuerpos (ADE, por sus siglas en inglés), un fenómeno virémico que podría ser un mecanismo alternativo de infección celular y que se deberá tener en cuenta cuando se diseñen vacunas o inmunoterapias que involucren el estímulo de anticuerpos neutralizantes o el uso de anticuerpos monoclonales. Actualmente no existen vacunas ni tratamientos que demuestren seguridad y eficacia en pacientes con COVID-19; sin embargo, se espera la conclusión de los resultados de la aplicación de una vacuna de ácidos nucleicos ARNm (mensajero del ácido ribonucleico) y de un fármaco antiviral (remdisivir) que se encuentran en ensayos clínicos fase III. Por el momento la mejor medida para evitar la propagación de la infección es el aislamiento social exhaustivo y viene siendo adoptado por varios países según recomendación de la Organización Mundial de la Salud (OMS).

Palabras clave: Síndrome Respiratorio Agudo Grave; Neumonía Viral; Virosis; Infecciones por Coronavirus; Pandemias; Anticuerpos; Citocinas; Linfocitos; Vacunas; COVID-19

Abstract

The COVID-19 pandemic has led many of us to stay at home, where we have fewer social interactions and exercise less. This can have negative consequences for physical and mental health. Here are some tips to help you and your family stay healthy at home during this period of confinement.
The disease caused by the new coronavirus (COVID-19) is characterized by fever and cough, affecting the lower respiratory tract and being associated with age, comorbidities and a weakened immune system. Lymphopenias has typically been evidenced in severe cases and excessive production of inflammatory cytokines (cytokine storm), which would explain the role of the hyperinflammatory response in the pathogenesis of COVID-19. Secondary inflammatory responses due to virus reinfections could induce antibody-dependent enhancement or enhancement (ADE), a viremic phenomenon that could be an alternative mechanism of cellular infection and that should be taken into account when designing vaccines or immunotherapies that involve the stimulation of neutralizing antibodies or the use of monoclonal antibodies. Currently there are no vaccines or treatments that demonstrate safety and efficacy in patients with COVID-19; however, the results of the application of an mRNA nucleic acid vaccine (ribonucleic acid messenger) and an antiviral drug (remdisivir), which are in phase III clinical trials, are awaited. At the moment, the best measure to prevent the spread of the infection is exhaustive social isolation and it has been adopted by several countries according to the recommendation of the World Health Organization (WHO).

Keywords: Severe Acute Respiratory Syndrome; Viral Pneumonia; Virosis; Coronavirus Infections; Pandemics; Antibodies; Cytokines; Lymphocytes; Vaccines; COVID-19

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