Comisión Honoraria para la
Lucha Antituberculosa y
Enfermedades Prevalentes

Vacuna BCG y COVID-19

Revisión del tema

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BCG Y COVID - 19

CHLA-EP

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TENDENCIAS

La vacuna BCG reduce la tasa de mortalidad por coronavirus, afirma un estudio

Científicos de la Johns Hopkins Bloomberg School of Public Health encontraron que la tasa de mortalidad es seis veces más baja en los países que usan la vacuna centenaria contra la tuberculosis

The New York Times

La vieja vacuna que podría detener al coronavirus

Una inmunización contra la tuberculosis inventada hace un siglo es segura, barata y parece fortalecer el sistema inmunitario.

Español

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INTERNACIONALES

¿Podría estar la solución al COVID-19 en una vacuna del siglo pasado?

Vida Actual

EL PAIS

AFP FACTUAL

¿Cuál es la relación entre la vacuna BCG y la incidencia y gravedad del coronavirus?

QUE SE SABE DEL TEMA??

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EFECTOS HETEROLOGOS DE LA BCG

Nonspecific (Heterologous) Protection of Neonatal BCG Vaccination Against Hospitalization Due to Respiratory Infection and Sepsis

BCG Heterologous Protection in Children • CID 2015:60

Harnessing the beneficial heterologous effects of vaccination.

Goodridge HS, Ahmed SS, Curtis N, et al. *Nat Rev Immunol 2016;* 16: 392–400.

BCG vaccination protects against experimental viral infection in humans through the induction of cytokines associated with trained immunity.

Arts RJW, Moorlag S, Novakovic B, et al . *Cell Host Microbe 2018; 23: 89–100.e5.*

The influence of BCG on vaccine responses – a systematic review.

Zimmermann P and Curtis N *Expert Rev. Vaccines. 2018. 17:6, 547-554.*

ESTUDIOS ECOLOGICOS EN CONTEXTO DE COVID-19

Correlation between universal BCG vaccination policy and reduced morbidity and mortality for COVID-19: an epidemiological study.

Miller A, Reandelar M, Fasciglione K, et al. *medRxiv. 2020.03.24.20042937.*

Differential COVID- 19-attributable mortality and BCG vaccine use in countries.

Shet A, Ray D, Malavige N, Santosham M, and Bar-Zeev N. *medRxiv04.01.20049478.*

BCG vaccination may be protective against Covid-19.

Hegarty P, Kamat A, Zafirakis H, and DiNardo A. ResearchGate. Available at: https://www.researchgate.net/publication/340224580_BCG_vaccination_may_be_pr otective_against_Covid-19

NIVEL DE EVIDENCIA: BAJO
RIESGO DE SESGO : Alto

NIVEL DE EVIDENCIA: MODERADO – ALTO
RIESGO DE SESGO : Bajo a moderado

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Bacille Calmette-Guérin (BCG) vaccination and COVID-19

Scientific brief

12 April 2020

World Health Organization

Summary

There is no evidence that the Bacille Calmette-Guérin vaccine (BCG) protects people against infection with COVID-19 virus. Two clinical trials addressing this question are underway, and WHO will evaluate the evidence when it is available. In the absence of evidence, WHO does not recommend BCG vaccination for the prevention of COVID-19. WHO continues to recommend neonatal BCG vaccination in countries or settings with a high incidence of tuberculosis.[1]

There is experimental evidence from both animal and human studies that the BCG vaccine has non-specific effects on the immune system. These effects have not been well characterized and their clinical relevance is unknown.[2,3]

On 11 April 2020, WHO updated its ongoing evidence review of the major scientific databases and clinical trial repositories, using English, French and Chinese search terms for COVID-19, coronavirus, SARS-CoV-2 and BCG.

The review yielded three preprints (manuscripts posted online before peer-review), in which the authors compared the incidence of COVID-19 cases in countries where the BCG vaccine is used with countries where it is not used and observed that countries that routinely used the vaccine in neonates had less reported cases of COVID-19 to date. Such ecological studies are prone to significant bias from many confounders, including differences in national demographics and disease burden, testing rates for COVID-19 virus infections, and the stage of the pandemic in each country.

The review also yielded two registered protocols for clinical trials, both of which aim to study the effects of BCG vaccination given to health care workers directly involved in the care of patients with COVID-19.[4,5]

BCG vaccination prevents severe forms of tuberculosis in children and diversion of local supplies may result in neonates not being vaccinated, resulting in an increase of disease and deaths from tuberculosis.[6-8] In the absence of evidence, WHO does not recommend BCG vaccination for the prevention of COVID-19. WHO continues to recommend neonatal BCG vaccination in countries or settings with a high incidence of tuberculosis.

Lectura recomendada del tema:

Does BCG vaccination protect against acute respiratory infections and COVID-19? A rapid review of current evidence

Soliman R, Brassey J, Plüddemann A, Heneghan C. CEBM, Oxforf University.

https://www.cebm.net/covid-19/does-bcg-vaccination-protect-against-acute-respiratory-infections-and-covid-19-a-rapid-review-of-current-evidence/

MUCHAS GRACIAS

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