

# A SURVEY ON ITALIAN MEDICALS DURING COVID-19 OUTBREAK. COULD BACILLUS CALMETTE-GUÉRIN VACCINE BE EFFECTIVE AGAINST SARS-COV2?

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## Abstract

Background: Epidemiological studies show that BCG vaccinated population seems to be more likely protected from COVID-19 infection, but WHO gave a stark warning on use of BCG vaccine without confirmed COVID-19 trials. The aim of this survey is to assess the ability and readiness to respond to viral infection by physicians who had been BCG vaccinated. Methods: After Ethical Committee authorization, professional orders were used to contact physicians with an online survey. Specialty, COVID-19 infection, and previous BCG vaccination were recorded. Statistical data analysis was performed. Results: 1906 medicals answered the questionnaire, (M=1068; F=838; mean age 50.7+/-13.3; >24<87 yrs), more than half (1062; 55.72 %) experienced BCG vaccination. Professional activity was recorded, and only 49 subjects (2.57%) of them was infected by SARS-CoV2. Among the group of infected people, asymptomatic form occurred in 12 subjects (24.5%); a pauci-symptomatic form in 24 subjects (49.0%); a severe form (pneumonia and/or respiratory distress) in 13 (26.5%). SARS-CoV2 infection rate was 2.17% (23/1062) in vaccinated group and 1.66 % (14/844) in unvaccinated group (p=0.359). Conclusion: Our experience does not confirm the possible protective role of BCG against COVID-19, pending ongoing controlled trials. Although recent epidemiological studies point out in BCG vaccinated population a lower prevalence of SARS-CoV2 infection, in our cohort of physicians no significant difference was found in terms of prevalence of COVID-19 infection. Our data underline the necessity to follow the WHO warning about indiscriminate use of BCG vaccine, until clear evidence of protection by BCG vaccination against COVID-19 is fully demonstrated.

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