

Re: The Bacillus Calmette-Guerin (BCG) Vaccine Is it a better choice for the treatment of viral warts?

رد: لقاح عُصِيَّة كالميت-غيران
هل هو خيار أمثل لعلاج الثآليل الفيروسية؟

Dear Editor,

I read the distinguished study by Al-Yassen *et al.* published in the August 2020 issue of *SQUMJ*.¹ This study compared the effectiveness of the intradermal *bacillus* Calmette-Guérin (BCG) vaccine with the topical salicylic acid (SA) in treating viral warts among a cohort of Iraqi patients. They found that BCG vaccine was more effective compared to topical SA in the treatment of viral warts with the best response observed in treating genital warts, followed by flat warts; *plantar* warts showed the least response to this therapy.¹ They concluded that the BCG vaccine could be regarded as an alternative therapy with a simple and cheap implementation in the clinical field.¹ The precise diagnosis of tuberculosis (TB) is an essential step in TB control and prevention program worldwide, particularly in the developing countries. In Iraq, TB is a worrying health problem. The available data indicates that Iraq is among seven of the countries of the Eastern Mediterranean Region with a high TB burden; Iraq accounts for 3% of the total number of cases.² There are an estimated 20,000 TB cases in Iraq and the number of estimated deaths due to TB is more than 4,000 annually.² Tuberculin skin test (TST) is applied widely to assess BCG vaccine efficacy and screen latent TB infection. Studies have demonstrated that TST interpretation is affected by the antecedent BCG vaccine exposure.³⁻⁵ I assume that implementing intradermal BCG vaccine immunotherapy in treating viral warts could ultimately curtail employing TST in the diagnostic panel of TB in suspected patients. Hence, weighing the benefit-risk ratio of this new treatment modality must be exercised before finally recommending it in the clinical setting in high TB burden countries, including Iraq. Conducting additional clinical and immunological studies on that aspect is imperative.

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Response from the Authors

Dear Reader,

After reading the above Letter to the Editor, we would like to clarify some points. First, many studies previously done in countries such as India (where over 2.4 million TB patients were reported in 2019 with an incidence rate

of 19.9/100,000) recommend and support the efficacy and safety of BCG in treatment of viral warts.^{1,2} Second, the World Health Organization report referenced above was released in 2014.³ Recent data about the extent of TB in Iraq according to the annual report of the Iraqi Ministry of Health in 2019, states that the number of new cases registered in Iraq was 6,663 with an incidence rate of 17/100,000.⁴ Third, traditionally, the tuberculin TST has been used as the standard for the identification of prior exposure to *Mycobacterium tuberculosis*. However, the specificity of a positive test is less than optimal.⁵ Four, it was reported that in subjects without active TB, immunisation with BCG increases the possibility of a positive tuberculin skin test, but the effect of BCG on the Mantoux test was less after 10–15 years of vaccination.^{6,7} In addition, BCG vaccination was not an important cause of false-positive Mantoux test results, except in populations with a low prevalence of active TB.⁸

Finally, there is evidence suggesting that BCG revaccination in adolescence confers protection against TB meningitis.⁹ In the United Kingdom, boosting healthy previously vaccinated adults was found to be well tolerated and improved purified protein derivative-specific cluster of differentiation 4+ T-cell responses.¹⁰

Despite the importance of what has been mentioned above and irrespective of the extent of TB in Iraq or elsewhere, TB is an important health problem and the benefit/risk of the BCG vaccine should be evaluated before its use. Moreover, the interpretation of the skin test needs to take into consideration the individual clinical context and evaluation of other risk factors for infection. A cut-off measurement of skin indurations of >15 mm is more likely to be the result of TB infection rather than previous BCG vaccination.⁸

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