Response to "Purified protein derivative as intralesional immunotherapy for treatment of warts: Selection of the appropriate population is crucial"

To The Editor: I thank Nazarian and McLellan for their perceptive comment that drew attention toward the clinical significance of purified protein derivative (PPD) use in countries in which bacille Calmett-Guerin vaccine is not mandatory and the prevalence of tuberculosis (TB) infection is low.[1] I agree with the authors that the effectiveness of the PPD vaccine depends mainly on the host immune response to mycobacterial antigens. But, in addition, I would like to highlight 1 point.

In our analysis, my colleagues and I stated that the included studies by Shaheen et al and Amirnia et al used an immunotherapy reaction test before PPD injection.[2-4] In countries such as the United States, for detection of actual latent TB infection in immunocompetent patients, a test is considered positive only when the examiner detects an induration response of 10 to 15 mm at 48 to 72 hours after intradermal injection of 0.1 mL of PPD.[5] However, in the 2 included studies, a 5-mm reaction after the same dose of tuberculin PPD (0.1 mL) was sufficient to alleviate warts with a dose of 0.3 mm of intralesional PPD.[3,4] Therefore, noninfected or nonimmunized patients with warts can still get some response from PPD use. This may be explained by the widespread existence of *Mycobacterium* organisms that are typically living in water (including in tap water treated with chlorine) and food sources with a high probability of cross-immunity with TB subtypes.[5]

Therefore, PPD treatment for warts may also be effective in countries other than those mentioned in the included studies.[3,4] However, this does not eliminate the need for multicenter studies assessing the comparative efficacy of different intralesional immunotherapy modalities in wart management. Thus, I highly recommend further studies in this area mentioned by Nazarian and McLellan.[1]

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