LETTER TO THE EDITOR

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Is the HIV Seroprevalence among Iraqi Patients with β-thalassemia Major Underestimated or not Prevalent?

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Dear Editor,

In the July 2020 issue of the *Oman Medical Journal*, Sadullah et al,[1] reported that no HIV infection cases were detected among patients with β-thalassemia major (β-TM) attending a center in Northern Iraq. Though such a finding supports a similar observation previously reported at the national level,[2] I still assume that the actual HIV seroprevalence among β-TM patients is underestimated. My assumption is based on the following two points.

First, although Iraq is considered a country with a low HIV/AIDS epidemic (0.1%), HIV risk factors have continued to increase since 2003 due to low literacy, poverty, gender-associated discrimination, and limited knowledge of the modes of HIV transmission. Approximately 57% of HIV cases were acquired by blood transfusion and blood products, although sexual transmission has increasingly become the major reported route of HIV transmission. The current state of constrained financial resources at governmental level, crisis of internally displaced people, sociocultural barriers, and weak national preventive efforts are expected to increase the spread of HIV/AIDS in Iraq.[3] Consequently, the increase in HIV infection among β-TM patients is expected to parallel a similar rise in the general population.

Second, there are numerous laboratory tests to diagnose HIV infection. In Iraq, CD4 lymphocytes and viral overload estimations are often used in clinical settings, while fourth-generation assay for combined P24 antigen and antibody detection are employed on limited basis. The latter assay could better identify early HIV infection.[4] The need of β-TM patients for regular blood transfusion, limited awareness by the public of HIV, limited availability of assay for detecting combined HIV antibody and P24 antigen, and noticeable variation in the diagnostic performance and cost of various commercial HIV test kits[5] could jointly contribute to the increased likelihood of acquisition of HIV infection in good numbers of β-TM patients in Iraq. Regrettably, Sadullah et al,[1] did not mention the exact diagnostic panel for HIV testing in their studied population in the
study methodology.

Finally, the suboptimal care of β-TM patients reported by the authors is similarly reported in other centers across the country.[2] With the expected surge in the β-TM prevalence in Iraq due to the culturally preferred consanguineous marriage, I agree with the authors that strategic actions must be geared to improve the survival and quality of lives of the β-TM patients. Among these actions, premarital screening (PMS) is paramount. It helps alleviate the burden of various hereditary hemoglobinopathies, including β-TM, on the national health care system and decreases suffering among at-risk couples. PMS has been found to decrease the affected birth rate of major hemoglobinopathies by 21.1% in a single-center study in Iraq.[6] Establishment and intensification of PMS in other centers across the country together with enhancing counseling programs and public health awareness are fundamental.

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