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Author's Reply

Re: HLA is better than serological screening for celiac diseases in rheumatological arthritis

Dear Editor,

Thank you for giving us this opportunity to answer to the Letter to the Editors by Rahmoune et al. (1), regarding our recent publication entitled "Screening of patients with juvenile idiopathic arthritis and those with rheumatoid arthritis for celiac disease in southwestern Iran Population" (2).

In reply to their comments, the etiology of JIA is unknown and in addition to different genetic factors e.g. various human leukocyte antigen (HLA) alleles, triggering environmental factors also play roles (3). On the other hand, the diagnosis of juvenile idiopathic arthritis (JIA) is based on clinical criteria and exclusion of other forms of arthritis (4).

Regarding to the guidelines produced by ESPGHAN, modified by BSPGHAN, HLA typing could be done in 'high risk' populations to rule out celiac disease (CD) (5,6). We believe submitted comment requires that patients with rheumatologic diseases consider as high risk population for CD.

HLA-DQ2 or HLA-DQ8 is necessary for disease development but is not sufficient for disease development; its estimated risk effect is only 36-53% (7). HLA-DQ2 and -DQ8 alleles have a strong negative predictive value but a very weak positive predictive value for diagnosing of CD patients. About 0-12% of European population with CD showed lack of both these alleles (8). Approximately 25-40% of white normal Caucasians have HLA-DQ2/DQ8 haplotype while only 1-2% of the whole population would have CD (9,10). The frequency of different alleles is variable in different populations. Accordingly, Khosravi et al. (11) reported that the frequency of DQ8 among Iranian normal population is even higher than those reported by European countries.

Moreover, patients with different types of JIA may have similar HLA-DQ2/DQ8 alleles but not involved with CD at the same time. However, further investigations are needed to find out the association between JIA categories and certain HLA alleles. The cost- effective of HLA typing for screening in all patients with rheumatologic disease depends on the cost of genotyping and the frequency of CD in these patients.

We conclude that HLA genotyping is not a powerful indicator for the screening of CD in patients with rheumatologic diseases and needs to further investigations.

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