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Author Response: Morphea, Gluten, and Autoimmunity: HLA Behind the Scenes?

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We appreciated Boutrid and Rahmoune for their remarks regarding our report in the letter to the editor.[1] The authors first reference several case reports describing morphea-like lesions in patients with celiac disease and diabetes. Next, they highlighted the genetic links between several autoimmune diseases (AD): morphea, celiac disease, diabetes, rheumatoid arthritis, multiple sclerosis, and autoimmune thyroiditis. Coexistence of multiple AD commonly is seen, and the combination of at least three ADs is called multiple autoimmune syndrome.[2] This is analogous to multiple endocrinopathies seen in autoimmune polyendocrinopathy syndrome, also called polyglandular autoimmune syndromes, that have identified genetic mutations.[3] These clusters of disorders and named syndromes help to correlate disorders together, and if recognized, may lead to additional testing for early diagnosis and treatment.

We agreed with the authors that the association of various HLA genes with AD bolsters our understanding of the nature of the autoimmune conditions and has implications for improved medical care in the future. Several studies have identified specific HLA gene variants associated with an increased risk of the particular disorders mentioned in our paper. For example, HLA DQB1*02 is associated with celiac disease, dermatitis herpetiformis, and dermatomyositis.[4-8] Additionally, HLA DRB1*04 is associated with celiac disease, dermatitis herpetiformis, dermatomyositis, and morphea.[4,9]

The authors discussed a potential situation in the future where each patient with an AD could receive HLA testing. The utility of such a practice is evident. The recognition of relative risk for associated AD based on the genetic profile would facilitate earlier diagnoses of concurrent diseases and subsequently improved disease management. We commend Boutrid and Rahmoune for their commentary on our article which contributes knowledge and insight on this subject. We recommend further studies to investigate the genetic associations between autoimmune diseases. As we discussed in our paper, the investigation of clusters of autoimmune conditions (possibly with the help of HLA typing) may lead to new associations and the discovery of therapeutic targets.

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