

# Multiple Autoimmune Syndromes in Type 1 Diabetes

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## INTRODUCTION

Multiple autoimmune syndrome (MAS) is a particular entity, associating at least three autoimmune disorders in the same patient.

This conditions is very rarely reported in children. We present two pediatric cases.

## MATERIAL & METHODS

We performed a retrospective, single-center study in a Tertiary University Hospital ( Pediatrics Department, Setif University Hospital, Algeria)

We reviewed all outpatient clinic patients presenting celiac disease (CD) with type 1 diabetes (T1D) up to October 2021, and non-surprisingly we found two multiple autoimmune syndromes .

## RESULTS & DISCUSSION

The 2 MAS were:

-a girl presenting T1D and autoimmune hypothyroidism; well balanced under opotherapy

-a boy associating CD, T1D and Crohn disease, with short stature, Mauriac syndrome and dysglycemia

These 2 patients depict a type 3 MAS (type 1 diabetes, celiac disease and autoimmune hypothyroidism/Crohn disease), probably due to a particular genetic background that deserves to be checked.

The results of HLA genotyping were obtained for the boy and confirmed the presence of HLA DQ2 and DR3/DR4 genes

In fact, an HLA test to look for the so-called HLA 8.1 haplotype (encompassing HLA classes I and II, notably the HLA DQ2/DQ8 and DR3/DR4 genes) would be preferable in such cases.

Associations of T1D and hypothyroidism are quite frequent, but MASs including CD are very scarce: only similar 3 case reports were found on Pubmed \*  
The female sex, like our first case, is more frequently encountered.

## CONCLUSION

Screening for morbid associations is mandatory in type 1 diabetes; and the multiple autoimmune syndrome is a peculiar condition, possibly due to HLA genes' susceptibility.

The near future is promising for an individualized, genotype-guided management for type 1 diabetic patients.