Diabetes type 1, HLA genes and celiac disease: an Algerian pediatric cohort

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INTRODUCTION

Type 1 diabetes mellitus (T1D) CD is closely associated with Celiac disease (CD); and the world's highest prevalence of this association is reported in Algeria!

We report the main epidemiological characteristics in an Algerian pediatric cohort of T1D and CD along with their HLA risk genes.

MATERIAL & METHODS

We performed a retrospective analysis of a cohort of diabetic children with celiac disease for whom a genetic test (HLA) has been performed

This is a monocentric study from our pediatric department in a tertiary university hospital in eastern Algeria (Setif)

RESULTS & DISCUSSION

We collected 09 children with T1D and Celiac disease, 2 boys and 7 girls In this cohort, all patients presented the HLA risk genes DQ2 and/or DQ8

All these cases (DT1 +MC) depict 2 common clinical characteristics:

1. Diagnosis of CD made through systematic, annual serological screening in pediatric DT1 patients

2. Onset of diabetes preceding that of CD

Actually, the majority of T1D with CD children are those diagnosed with diabetes and secondarily diagnosed with CD

The female prevalence, as for our series, is quite common: an Italian cohort of 4,322 children reported h a risk almost twice as high in girls than in boys.

Multiple autoimmune disorders in the same patients, especially in DT1 patients, are probably linked (in part) to genetic HLA DR/DQ susceptibility.

This entity is uncommon in children. The near future looks promising thanks to precision medicine, with individualized management guided by the genotype of at-risk patients.

CONCLUSION

Children and adolescents with T1D are at high risk of developing CD, mainly due to their common genetic characteristics

Our study is still recruiting patients to unveil any potential clues or phenotype-genotype correlation

REFERENCES (UPON REQUEST):   rahmounehakim@gmail.com