European Journal of Ophthalmology

Volume ١٩, Issue ٤, ٢٠٠٩, Pages ٦٣٨-٦٤٥

HLA-DQB١ subtypes predict diabetic retinopathy in patients with type I diabetes mellitus

Khazaee, M.H.[a], Afshari, J.T.[b], Khazaee, B.[c], Daneshvar, R.[df], Akbarzadeh, J.[b], Khazaee, L.[e], Ganjali, R.[b], Raygan, F.[e]

[a] Internal Medicine Department, Emam Reza General Hospital, **Mashhad University** of **Medical Sciences**, **Mashhad**, Iran

[b] Immunogenetics and Tissue Culture Department, Bu-Ali Research Institute, **Mashhad University** of **Medical Sciences**, **Mashhad**, Iran

[c] Bu-Ali Research Institute, Khorasan Diabetes Center, **Mashhad University** of **Medical Sciences**, **Mashhad**, Iran

[d] Eye Research Center, Ophthalmology Department, **Mashhad University** of **Medical Sciences**, **Mashhad**, Iran

[e] **Mashhad University** of **Medical Sciences**, **Mashhad**, Iran

[f] Khatam Anbia Eye Hospital, Ghareni Blvd., **Mashhad** ٩١٩٥٩-٦١١٥١, Iran

View references (٣٠)

Abstract

Purpose. To investigate if diabetic patients without diabetic retinopathy despite long disease duration have different human leukocyte antigen (HLA) status vs those with an early onset of retinopathy. Methods. Retrospective, nonrandomized, masked comparative study. Type ١ diabetic patients with a disease onset before age ٣٠ were recruited to the study. The study population consisted of two groups of diabetic patients: those with normal retinopathy course (retinopathy developed during the first ٢٠ years of diabetes onset) (٢٣ patients) and those with postponed retinopathy (no obvious retinopathy in spite of passing ٢٠ years of diabetes) (١٩ patients). These groups were matched with regard to level of glycemic control, blood pressure, and lipid profile. A group of ٢٣ healthy patients served as controls. HLA-DQB١ typing of blood samples was done using a polymerase chain reaction with sequence-specific primer (PCR-SSP) method. Results. HLA-DQB١*٠٢٠١/HLA-DQB١*٠٥٠١ and HLA-DQB١*٠٢٠١/HLA-DQB١*٠٥٠٤ haplotypes were more common among type ١ diabetic patients with normal retinopathy course than those with postponed retinopathy (٢٦,١٪ vs ٠,٠٪; p=٠,٠١٩). HLA-DQB١*٠٣٠١ and HLA-DQB١*٠٣٠٤ were less common among those diabetic patients with normal retinopathy course than those with a postponed retinopathy (٦٣,٢٪ vs ٣٤,٨٪; p=٠,٠٦٧). Conclusions. Some haplotypes seem to predispose diabetic patients to diabetic retinopathy. HLA typing may be beneficial for predicting the prognosis of diabetic retinopathy in younger diabetic patients. © Wichtig Editore, ٢٠٠٩.

Reaxys Database Information

|

Author keywords

Diabetic retinopathy; HLA-DQB١ subtypes; Type I diabetes mellitus

Indexed Keywords

EMTREE drug terms: HLA DQB١ antigen

EMTREE medical terms: adult; article; clinical article; controlled study; diabetic retinopathy; disease course; female; genetic predisposition; haplotype; human; insulin dependent diabetes mellitus; male; onset age; polymerase chain reaction; priority journal; risk assessment; risk factor

MeSH: Adult; Blood Glucose; Blood Pressure; Diabetes Mellitus, Type ١; Diabetic Retinopathy; Female; Gene Frequency; Haplotypes; Histocompatibility Testing; HLA-DQ Antigens; Humans; Male; Membrane Glycoproteins; Polymerase Chain Reaction; Retrospective Studies

Medline is the source for the MeSH terms of this document.