An audit of the presence of coeliac disease associated human leukocyte antigen haplotypes in renal and bone marrow transplant donors and recipients from the South African National Blood Services

Abstract

Introduction

Coeliac Disease (CD) is an autoimmune condition occurring in genetically predisposed individuals exposed to an environmental trigger. The Human Leukocyte Antigen (HLA) haplotypes HLA DQ2.5 and HLA DQ8 bear the strongest association with CD, and 90 - 95% of patients with CD bear these haplotypes. The absence of these haplotypes has high negative predictive value. The susceptibility of the South African population to CD has not been studied previously.

Methods

The South African National Blood Services database was used to analyse the prevalence of HLA DQ2.5 and DQ8 in potential donors and recipients of organ transplants.

Results

The overall prevalence of HLA DQ2.5 and HLA DQ8 was 19.8%. The prevalence was lower in Black subjects (15%) than Caucasians (28%). Mixed race (22%) and Indian (17%) subjects had intermediate prevalence. The was no significant difference between potential transplant donors and recipients.