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Association of HLA class II (DR/DQ) alleles in patients with Crohn's disease in Kuwait: A pilot study

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Crohn's Disease (CD) is an autoimmune disease affect the whole gastrointestinal tract, but the most involved areas are the ileum and colon. The inflammation in CD is discontinuous and affects the full thickness of the intestinal tract wall. Activation of inflammatory T helper cells are a prominent feature in CD. It is likely that genetic susceptibility to CD is associated with Human Leukocyte antigens (HLA) class II molecule play an important role in the disease process, with certain allelic combinations conferring disease susceptibility or resistance. We report here, the first study in Kuwait to investigate the distributions of HLA-DR and -DQ among 23 unrelated patients with CD and 28 healthy controls from Kuwait. The HLA-DRB1* and –DQB1* genotypes were determined by Polymerase Chain Reaction-sequence-specific priming PCR-SSP). The following alleles showed the strongest association with CD among patients versus controls according to their frequencies: DRB1*04:01:01 (19.6% versus 3.6 %; $P = 0.021$), DQB1*03:02:01 (17.4% versus 3.6%; $P = 0.04$). These results are consistent with most reported studies confirming the association of HLA class II alleles with the risk of CD development among different population; however, the current study was performed on a small sample size of the population and therefore, it is required to be confirmed by a larger sample size study.

Biography

Einas Mobaruk Al-Harbi has done her Ph.D. in Molecular Medicine, Specialized in Medical Genetics, from Molecular Genetics Department, Princess Al-Jawhara Center for Molecular Medicine, Genetics and Inherited Disorders, Arabian Gulf University, Bahrain. She is currently working at Medical Genetics Senior Specialist, Kuwait Medical Genetics Center-MOH. She has over 16 research publications.

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