Summary

Nephrotic Syndrome (NS) is an important chronic disease in children characterized by massive loss of urinary protein leading to hypoproteinemia resulting in edema. Hyperlipidemia and hypercholesterolemia are usually associated with nephrotic syndrome

The study group included 46 patients with nephrotic syndrome. There were 28 (60.87%) male and 18female (39.13%)their age ranges between (1-20) years, attended to Al-Sadar Teaching Hospitalin Al-Najaf province,Al-Diwaniya Maternity and Children Teaching Hospital in Al-Diwaniya province, Al-Samawah Maternity and Children Teaching Hospitals and Al-Hussein TeachingHospital in Al-muthanna province for the period from December 2013 to May 2014. Other (25) healthy subjects (10 females and 15 males) were included as a control group. The dominant form (34.78%) of patients with nephrotic syndrome was found in the age group of 6-10 years old. Blood samples were collected from both groups,and genomic DNA was extracted from peripheral blood leukocytes for further molecular study to reveal any association between macrophage migration inhibitory factor G-173C Polymorphism and tumor necrosis fctor-a-G308A Polymorphism and nephrotic syndrome. Polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) technique was used for this purpose and digestion of the amplified DNA products by Alul and Nco1 endonuclease respectively gave fragments with different molecular sizes which express certain genotypes.

Serum levels of interleukin-13 and tumor necrosis factor-α was detectedby using quantitative Enzyme Linked Immunoabsorbent assay test.

Summary

This study detected that the prevalence rate of single nucleotide polymorphism macrophage migration inhibitory factor G-173C was not significantly among nephrotic syndrome (P=0.409), heterozygous genotype GC and mutant C allele carrier frequencies not significantly in nephrotic syndromepatients (P=0.798, P=0.429respectively), in contrast homozygous normal GG genotype (P=0.803) , Genotype (CC) expression was significantly higher in female patients (P = 0.028). Allele (G) expression was significantly higher in male patients (P = 0.018), while allele (C) expression was significantly higher in female patients (P =0.018);and the prevalence rate of single nucleotide polymorphism tumor necrosis factor-α G308Awas statistically significant among nephrotic syndrome patients.The homozygous mutant genotype AA (P=0. 0.011), heterozygous genotype GA (P=0.287) andmutant allele A (P <0.011), association between tumor necrosis factor-α genotype and allele expression and gender was no significant

Serum levels of interleukin-13andtumor necrosis factor-α significantly higher among cases withnephrotic syndromein comparison to healthy controls (P< 0.001).

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