frequencies of heterozygosity for the A/C allele 2173 in the experimental and control groups were 40% and 25.3%, respectively, while the frequencies of the two allele polymorphisms (CC) in the experimental and control groups were 37.4% and 6.7%, respectively (P <0.001) (Figure 4).

Whenever there was an association between SNPs and anti-TPO antibody levels in the study groups there were no significant differences among serum anti-TPO levels and the three genotypes, namely AA, AC, and CC in the A2095C polymorphism (P = 0.086), while there were significant differences between anti-TPO levels and the three genotypes, namely AA, AC and CC in the A2173C polymorphism region of the TPO gene (P = 0.035) (Table 3); these data regarding each SNP were calculated in the whole of the study groups. However, there was no significant correlation between other thyroid function tests in the genotypes of the TPO A2095C and A2173C polymorphic regions. The genotypes and allele frequencies of the A2095C and A2173C polymorphisms in the whole of the study population who had positive and negative anti-TPO antibody levels are depicted in Table 3.

The findings of the present study demonstrate that there is a significant correlation between the C allele of both the TPO A2095C and A2173C gene polymorphisms and patients with subclinical hypothyroidism (P = 0.001 and P <0.001, respectively). Investigation of the A2095C and A2173C polymorphisms in the experimental group revealed that the odds ratio (CI 95%) in one or two alleles is 1.5 and 5.6, respectively. Indeed, the probability ratio of the risk of subclinical hypothyroidism in patients who have C alleles in the A2095C polymorphic region is 1.5, but in the A2173C region it is 5.6-fold higher than those without this allele. For example, if someone has the A2173C polymorphism (i.e. AC or CC), the likelihood of his having SCH will be 5.6 times higher than in an individual who does not have this polymorphism. In addition, there is a significant association between high serum anti-TPO levels and subclinical hypothyroidism, this being substantiated...