



**Figure 1. LD analysis of 9 SNPs (subjects aged 45-65).** The LD structure was analyzed by Haploview for a total of 634 alleles from the patients with cerebral infarction and from the controls. There was a strong LD between the rs34124816, rs3219175, rs34861192, rs1862513, rs3745367, 180C/G and rs3745369 (red box) polymorphisms with a standardized disequilibrium coefficient ( $D' > 0.7$ ).

**Genotype distribution of resistin gene sites rs3219175 and rs34861192 in the CI group and the control group with classification of gender and TOAST in the middle-aged groups**

**(1) The relationship between gender and rs3219175 and rs34861192**

In middle-aged male subjects, the p-values for the genotype distribution of rs3219175, rs34861192 sites in the CI group and the control group were 0.021 and 0.028, respectively, which indicated statistical significance. As for middle-aged female subjects, the p-values were 0.729 and 0.729, indicating no statistical significance. Thus, CI induced by mutations of rs3219175 and rs34861192 could

be related to gender and mainly impact the middle aged male CI patients (Table 6).

**(2) The relationship between SAO, LAA and rs3219175, rs34861192**

The p-value for the genotype distribution of rs3219175 and rs34861192 sites in the SAO CI group and the control group were 0.025 and 0.032, which indicated their statistical significance. As for the LAA CI group, the p-values were both higher than 0.05, indicating no statistical significance. Therefore, the mutations of the rs3219175 and rs34861192 SNPs mainly occurred in the SAO CI patients (Table 7).