
Figures and figure supplements

The Dantu blood group prevents parasite growth in vivo: Evidence from a controlled human malaria infection study

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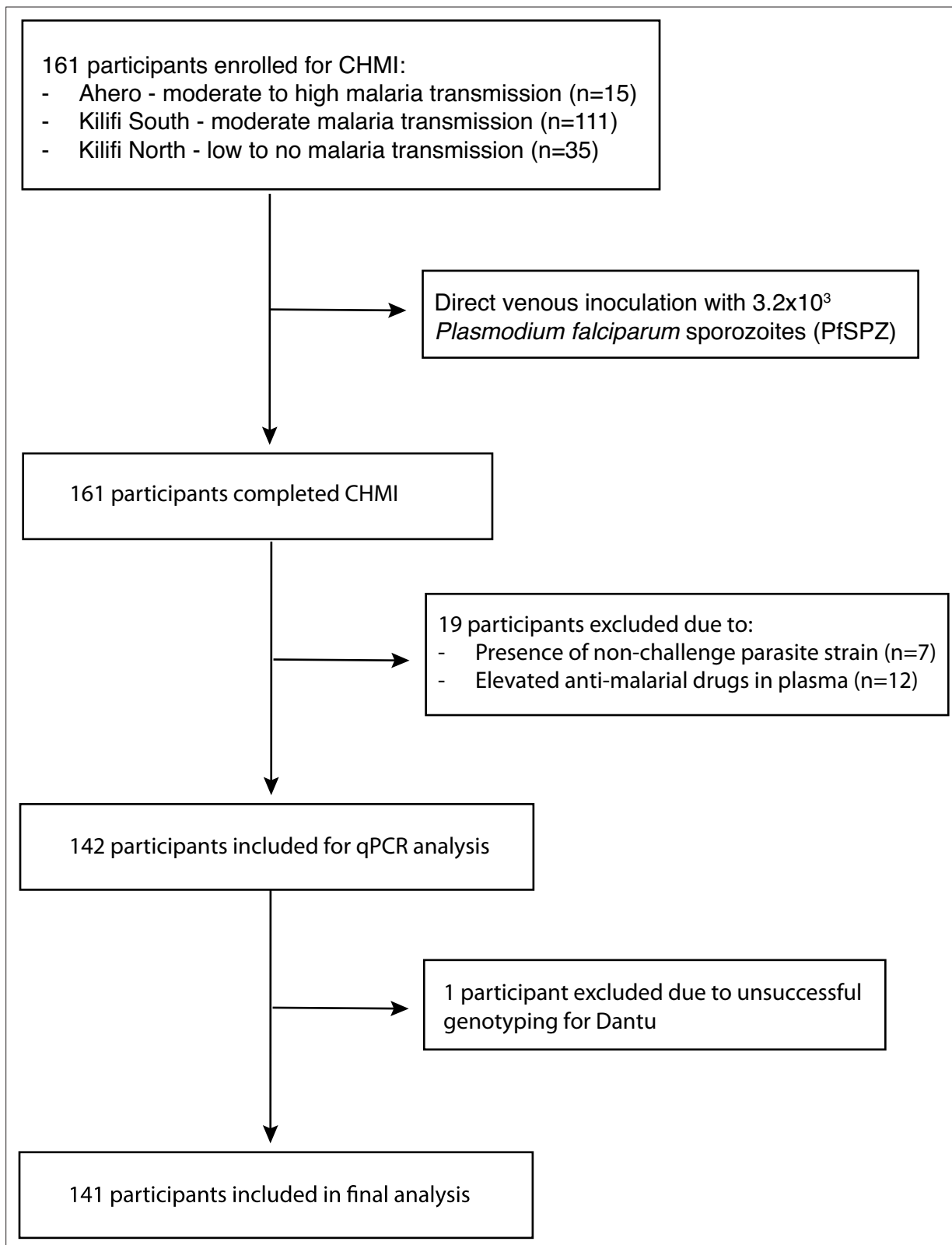


Figure 1. Study design and participant recruitment.

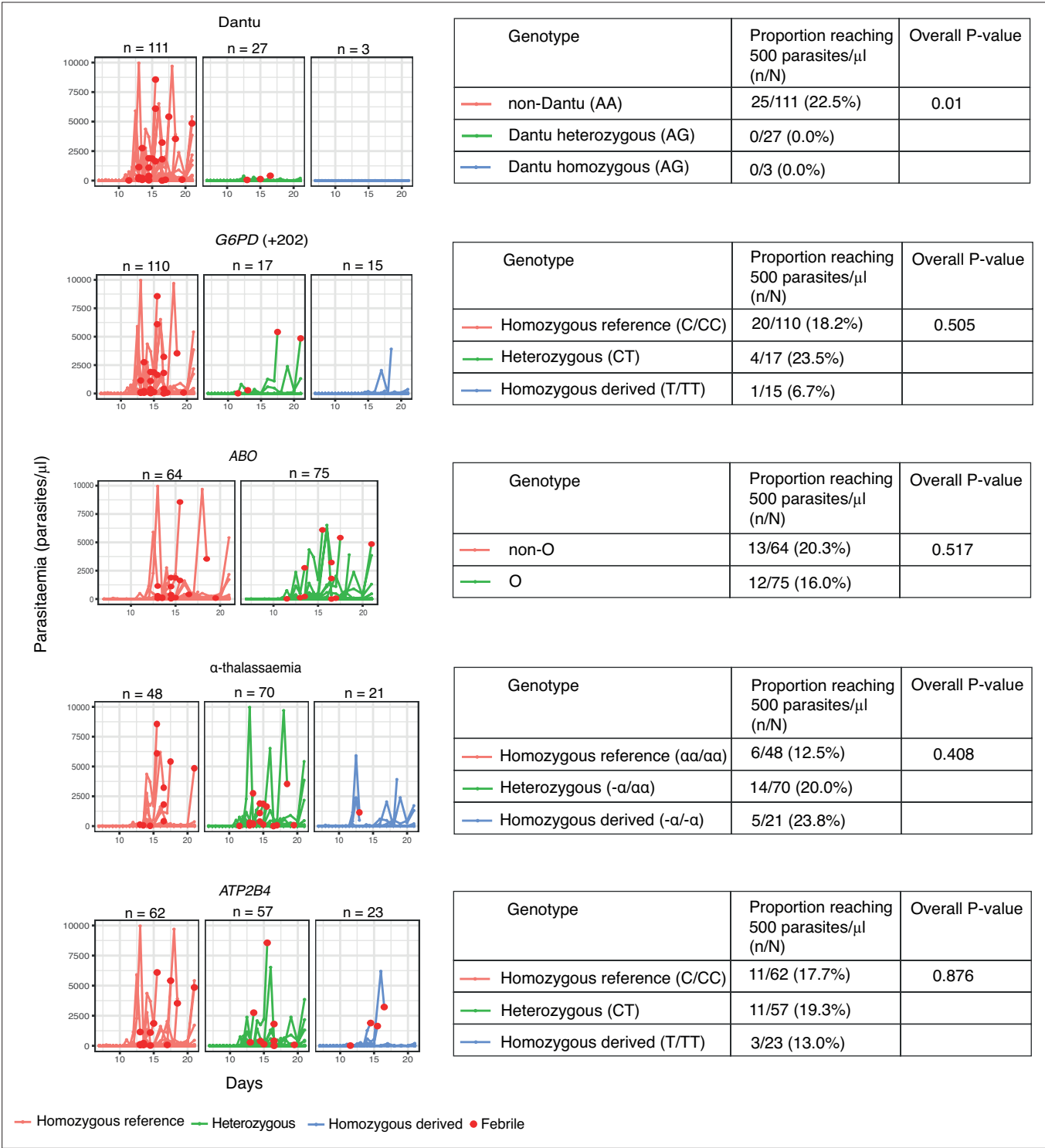


Figure 2 continued

confounding effect of this was controlled for in multivariate analysis. The tables adjacent to each plot show the results from Fisher's exact tests investigating differences in the proportion of participants that reached the pre-defined treatment threshold of 500 parasites/ μ l (n) compared to the total number within each genotype category (N).

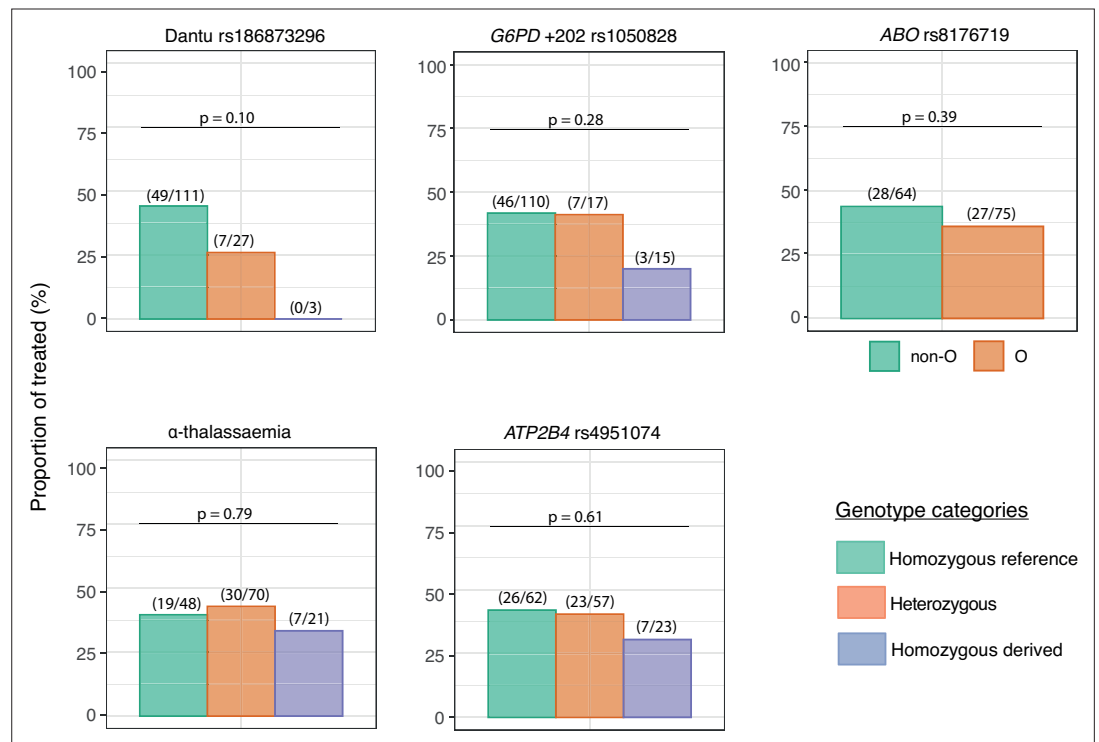


Figure 3. The impact of each gene variant on the requirement for malaria treatment. The proportion of individuals in each genotype category that required treatment over the course of the controlled human malaria infection (CHMI) study is shown on the y-axis. The number of treated individuals out of the total number in each genotype group is given in parenthesis above the bar graphs, while the p values from the Fisher's exact tests comparing the differences in proportions of individuals that required treatment across genotype groups are also given above the bar graphs.

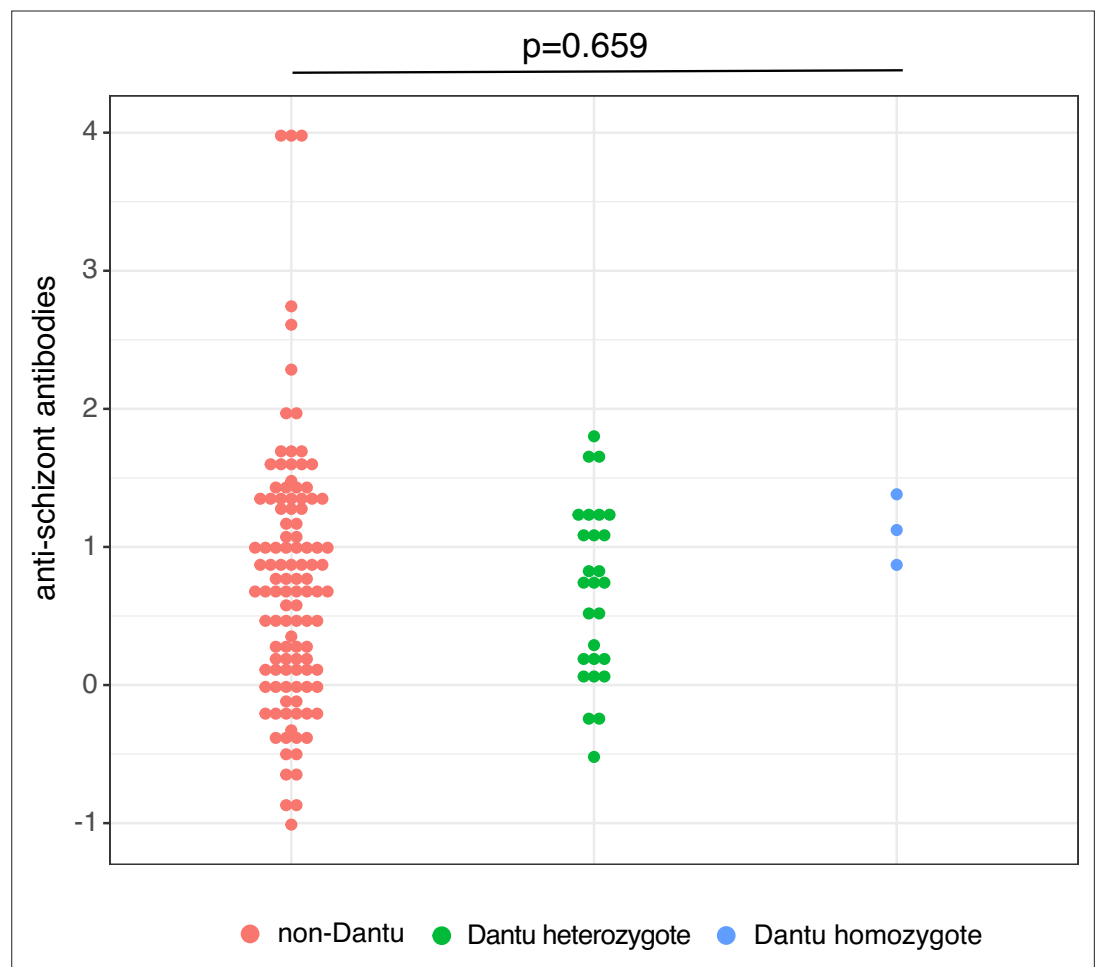


Figure 3—figure supplement 1. No differences in anti-schizont antibody levels were found across Dantu genotype groups.

The log-transformed anti-schizont antibody data were compared across Dantu genotype groups using a multivariate model with adjustments for other variant genotypes and location of residence.

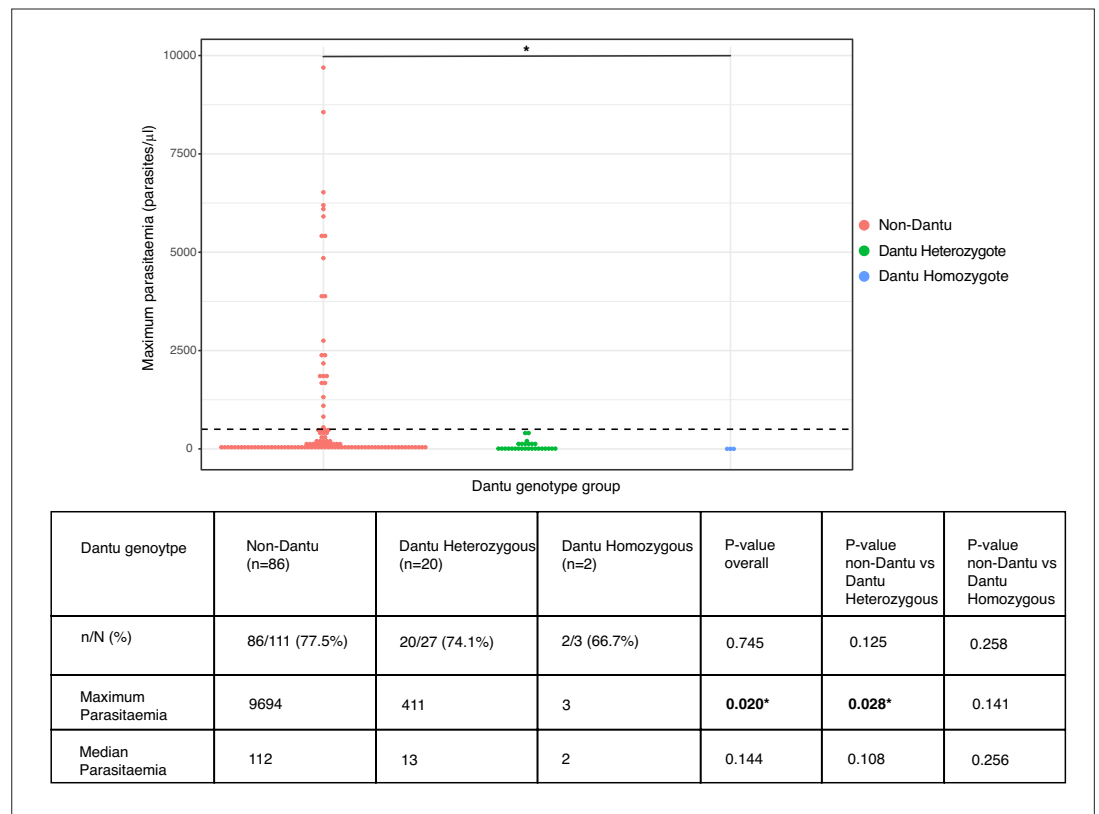


Figure 4. Peak parasitaemias were lower in Dantu variant carriers.

Maximum parasitaemia values for individuals across Dantu genotype groups, with dashed line indicating the treatment threshold of 500 parasites/ μ l. The table below the figure shows the numbers and frequencies of individuals in each genotype category that were PCR-positive over the course of the controlled human malaria infection (CHMI) study. n = the number of participants that were PCR-positive; N = the total number within the genotype category. Statistical comparisons of proportions of PCR-positive individuals across genotype groups and pairwise comparisons between genotype groups were performed using the Fisher's exact test. Statistical comparisons of maximum and median parasitaemia between genotype groups were performed using the Kruskal-Wallis test, and post-hoc Dunn's test for pairwise differences between the genotype groups.

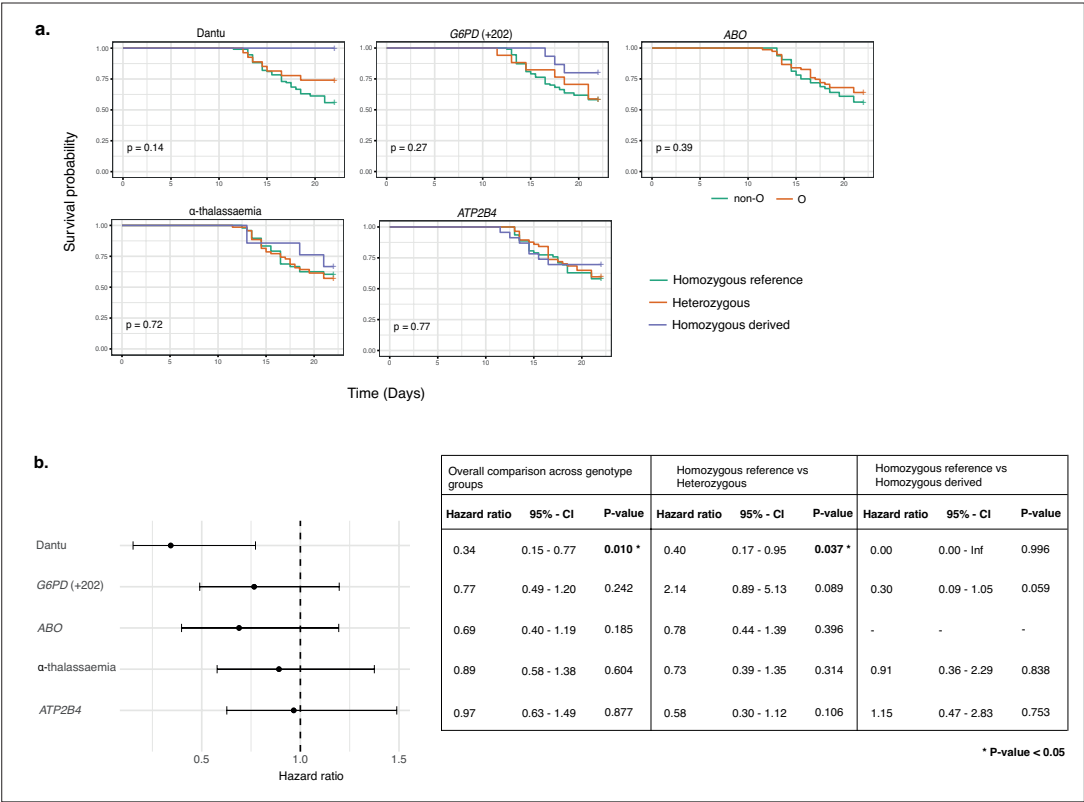


Figure 5. Time to treatment was longer in Dantu variant carriers. The impact of each gene variant on time to treatment was analysed by **(a)** Kaplan–Meier survival curves, with univariate comparisons across genotype groups performed using the Log-Rank test and **(b)** multivariate Cox regression models, with each variant genotype coded as zero, one, or two copies of the homozygous derived allele in an additive model, adjusting for the other four malaria-protective variants, anti-schizont antibody concentration, and location of residence. Pairwise analysis compared the time to treatment in the heterozygous- and homozygous-derived genotypes to the homozygous reference genotype.