Figure 4.

Model: $2.10 - 0.004 \times \text{Time (days)} - 0.173 \times \text{Retinopathy} - 0.008 \times \text{Time (days)} \times \text{Retinopathy}$

**Figure 4.** Changes in the number of heterozygous calls per barcode in individual patients (Y-axis) as days of sample collection progressed (X-axis) in the malaria season of 2009 (January to June 2009). The crosses and dashed line (obtained from an over-dispersed Poisson model) represent the malaria retinopathy-positive patients with a decrease of approximately 5.0 heterozygous calls over six months. The diamonds and solid line (obtained in an over-dispersed Poisson model) represent the malaria retinopathy-negative patients with a less marked decrease of approximately 3.6 heterozygous calls over six months. The trend suggests that over the course of the data collection period (i.e., the malaria season in Malawi), the number of mixed infections decreases leading to more homogenous infections. Trends over time of patients with and without malaria retinopathy were statistically significantly different (P-value = 0.0007).