**Abstract**

We have previously reported a significant decrease in serum PON1 activity after Nippostrongylus brasiliensis infection in Wistar rats in association with the inflammatory response mounted against the parasite in the migratory phase of infection. However, the roles of intestinal phase and the associated oxidative stress during N. brasiliensis infection on PON1 activity have not yet been elucidated. In the present study, we observed a significant reduction in serum paraoxonase and arylesterase activity on days 6 and 9 post-implantation with N. brasiliensis adult worms in the absence of a significant increase in various serum pro-inflammatory cytokines. In addition, provision of the antioxidant butylated hydroxyanisole (BHA) to adult worm-implanted rats did not ameliorate the reduction in PON1 activity. Due to the prolonged intestinal phase of gastrointestinal nematode infections, alterations in PON1 activity during this phase need to be further examined to elucidate the mechanism of alteration in PON1 activity.