Abstract

In the present study on Bubalus bubalis of the Campania Region (Italy) the serum levels of derivatives of reactive oxygen metabolites (d-ROMs), anti-ROM and oxidative stress index (Osi) were evaluated. These data were then related to the seropositive status of the animals against alpha-herpesviruses, precisely Bubaline herpesvirus 1 (BuHV-1) and Bovine herpesvirus 1 (BoHV-1). Clinically healthy Mediterranean buffaloes were selected for this study. The serum samples of these animals were taken, and d-ROMs, anti-ROM and Osi were measured using commercially available tests. The preliminary data demonstrated that animals seropositive to both BuHV-1 and BoHV-1 present more oxidative stress than seronegative animals, as revealed by a significant increase in d-ROMs. Our results provide, for the first time, insight into the reactive oxygen species (ROS) modulation induced by the herpesvirus in Bubalus bubalis.

Key words: Bubalus bubalis, Bubaline herpesvirus 1 (BuHV-1), Bovine herpesvirus 1 (BoHV-1), reactive oxygen metabolites (ROM), oxidative stress index (Osi).