Evaluation of Hepatic Antioxidant Changes in Ovine Dicrocoeliosis

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Abstract : Dicrocoeliosis, caused by Dicrocoelium dendriticum is a hepatic parasitic disease of clinical and financial significance in ruminant breeding, which causes direct losses due to condemnation of parasitized livers. The purpose of our study was to assess the effects of natural dicrocoeliosis on the antioxidant defense capability of the liver in sheep. For this purpose, livers of 40 infected sheep with D. dendriticumalong with livers of 20 healthy (control) sheep were collected from animals slaughtered in Khuzestan province, Iran. An increase in malondialdehyde concentrations accompanied by decreased activities of SOD and GPX of infected liver was noticed when com-pared with control values. Our data indicate that through dicrocoeliosis insufficient scavenging of reactive oxygen species takes place and caused oxidative liver damage.

Keywords : Dicrocoelium dendriticum, lipid peroxidation, antioxidant enzyme, liver

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