

CHANGES ON HEART AND RESPIRATORY RATES OF SHEEP AFTER ANTIHELMINTH MANAGEMENT

ALTERAÇÃO DA FREQUÊNCIA CARDÍACA E FREQUÊNCIA RESPIRATÓRIA DE OVINOS ADVINDAS DO ESTRESSE APÓS ADMINISTRAÇÃO DE ANTI-HELMÍNTICOS

MORGANA GAZONI¹, PATRIC ANDRÉ CASTRO^{1*}, ANAIARA LANGARO¹, VANESSA STOFFEL¹, GÉSSICA TOBIAS¹, SÔNIA FACHIN¹, DANIEL PIAIA¹, VANESSA SOUZA SORIANO¹

¹Universidade do Estado de Santa Catarina (UDESC), Chapecó, SC, Brazil.

*e-mail: patric.castro@gmail.com

The stress in animals can cause economic damage and reduction in quality of the final product. The discomfort caused by stress causes physiological, morphological and behavioral changes in the animals that end up reducing the level of well-being. The first variable to be changed in uncomfortable situations is the respiratory rate and heart rate. This study aimed to evaluate the change in heart rate and respiratory rate of sheep after two forms of anthelmintic treatment, oral and injectable. Thirty-four ewe lambs Lacaune breed selected by the degree of anemia were used (through Famacha method). The animals were allocated according to 2x2 factorial design, two groups of Famacha Group A: 1 and level 2 (20 animals) and Group B: Level 3 and 4 (14 animals), and two routes of administration (oral and injectable). Assessments of respiratory rate and heart rate were performed before, during and after administration of anthelmintics. Analyses were performed using the statistical package JMP 8 (SAS Inst., Inc., Cary, NC), adopting a significance level of $P < 0.05$. Respiratory rate had no effect of treatment and degree of Famacha not changing. Heart rate during treatment showed effect of the degree of anemia. This result can be explained by the mode of action of the parasites in its host, because helminth infection leads to anemia due to blood loss. Heart rate and respiratory rate were influenced by the type of administration, being higher for oral compared to injectable. One hypothesis for this result would be arising from the action of anthelmintics after application spectrum and the other would be the previous experience of the animals with oral administration. The oral route of administration was more stressful than the injectable route of administration, increasing the heart rate of sheep.

Keywords: animal welfare, anthelmintics, physiological variables.