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ABSTRACT BOOK

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(Ross, Cobb and three Iranian indigenous strains) of chicken (n = 7 per experimental unit (2 levels in exposure time* 3 levels in sample collection time* 2 levels in treatment), in total 84 chickens per population). The expression of IL6, IL18, iNOS, and IFN- γ was higher in Ross. The kinetics of expression of iNOS and IFN- γ was similar with a peak at 6 hours post challenge while the expression of IL6 and IL18 peaked at 2 hours with gradual decrease up to 10 hours post-challenge, in Ross. The overall profile of the expression was associated with each population genetic structure. However, our data did not demonstrate a distinct difference between indigenous versus commercial populations.

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Systemic immune responses associated to *Haemonchus contortus* resistance in a resistant Brazilian sheep breed (Morada Nova)

Toscano J.H.B.¹, Okino C.H.², Von Haehling M.B.¹, Dos Santos I.B.¹, Giraldeiro L.A.³, Figueiredo A.¹, Esteves S.N.⁴, Ferraz-Júnior R.S.⁵, Bassetto C.C.⁶, Amarante A.F.T.⁷, Chagas A.C.S.⁴

¹Universidade Estadual Paulista “Júlio de Mesquita Filho”, Departamento de Medicina Veterinária Preventiva, Jaboticabal, Brazil, ²Embrapa Southeastern Livestock, Lab of Animal Health, São Carlos, Brazil, ³Centro Universitário Central Paulista, São Carlos, Brazil, ⁴Embrapa Southeastern Livestock, São Carlos, Brazil, ⁵Embrapa Southeastern Livestock, Lab of Veterinary Parasitology, São Carlos, Brazil, ⁶Universidade Estadual Paulista

“Júlio de Mesquita Filho”, Departamento de Zootecnia, Jaboticabal, Brazil, ⁷Universidade Estadual Paulista “Júlio de Mesquita Filho”, Botucatu, Brazil

Background: *Haemonchus contortus* infection is the greatest cause of economic losses in sheep production worldwide. In face of widespread anthelmintic resistance, there is increasing number of studies regarding host resistance to parasite infections. The immune response against this parasite is predominantly Th2-polarized, with blood eosinophilia, and increased IgG and IgA serum levels. However, the immune mechanisms associated to host resistance are incompletely understood, even; studies regarding systemic mediators directly associated are scarce.

Method: This study aimed to evaluate systemic immune response profile related *H. contortus* resistance in Morada Nova sheep. 287 lambs were characterized through FEC and PCV, during two challenges with 4000 *H. contortus* L₃. 20% of the flock were classified as resistant (lowest FEC and highest PCV) and 20% as susceptible (highest FEC and lowest PCV). At weaning (natural infection, -14 dpi), and days 0 and 14 of each challenged, plasma samples were collected to evaluate IgG and IgA levels against *H. contortus* L₃ (ELISA). The ten most resistant and ten most susceptible lambs were submitted to a third parasitic challenge, and blood samples were collected (0 and 7 dpi) for TNF α , IL1 β , IL4 and IL13 mRNA quantification.

Results: Higher antibody levels were found in resistant animals, for both IgG and IgA, during different evaluated intervals. On the third challenge, susceptible animals had greater levels of TNF α at 0dpi and higher IL4 levels on 7 dpi. No difference between groups occurred for the other genes.