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5 EFFECTS OF TWO IMMUNOCASTRATION PROTOCOLS ON THE PERFORMANCE AND TESTICULAR WEIGHTS OF ALENTEJANO BREED MALE PIGS

[1]Rui Charneca, [2]Francisco Hernández-García, [2]Mercedes Izquierdo, [3]Rita Payan-Carreira, [1]José Manuel Martins, [1]Jordana Lopes, [4]Joana Machado, [1]Emanuel Carreira, [1]Maria Braz, [5]Catarina Ramos

[1]MED – Mediterranean Institute for Agriculture, Environment and Development & CHANGE – Global Change and Sustainability Institute, Universidade de Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal.
[2]CICYTEX (Center of Scientific & Technological Research of Extremadura), A-V, Km372, 06187 Guadajira, Badajoz, Spain.
[3]CHRC - Comprehensive Health Research Centre, Universidade de Évora, Ap. 94, 7006-554 Évora, Portugal.
[4]Hospital Veterinário da Universidade de Évora. Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal.
[5]ANCPA - Associação Nacional dos Criadores de Porco Alentejano, Rua Diana de Liz, 7005-413 Évora, Portugal.

Male pigs of the Alentejano breed are normally slaughtered at a high age and weight and orchiectomy is performed to prevent "boar taint" and aggressive behaviours. Due to the potential total prohibition of this chirurgical procedure in the European Union and the absence of validated immunocastration (IMC) protocols for Alentejano pigs reared outdoors and until high ages, a study was conducted under the SUMO (Sustainability of "Montado") project. The objective was to assess the effectiveness and effects of immunocastration on Alentejano breed males. Thirty Alentejano males were monitored from 5 to 14 months of age (~52 to ~191 kg live weight). Three experimental groups of 10 animals each were set: Group C – control group with animals undergoing orchiectomy; IMCP group – animals subjected to an early IMC protocol with four Improvac® administrations starting at 5 months of age; IMCT group – animals following a late IMC protocol, with three Improvac® administrations starting at 10 months. The pigs were housed by groups in 3 outdoor parks with more than 100m^2 per animal, each park featuring a collective shelter and ten feeding stations with individual feeders and drinkers, thus allowing for individual feeding. The feeding regimen was that usually followed for the production of animals destined for the "Montanheira", including a feed restriction period before fattening. Monthly weighing was done until slaughter. Globally, along the whole experimental period, there were no significant differences ($p>0.05$) in the average daily gain (ADG; 482 ± 3 g/d) and feed conversion rate (FCR; 4.98 ± 0.03) between the three groups. However, considering the different periods, significant differences in the productive performance were observed. The IMCP and IMCT groups showed higher ADG and lower FCR compared to the C group prior to the second Improvac administration. The mean testicular weights at slaughter were lower ($p<0.001$) in IMCP compared to IMCT pigs (29.5±3.5 vs. 77.5±3.5g). In both cases, the weights were below the considered threshold for "functional" testes (150g). The results of this study suggest that, overall, immunocastration did not significantly impact the productive performance of the animals, and both protocols were successful in reducing testicular weight. Further evaluations and analyses are underway in order

to: i) determine the presence of androstenone and skatole in fat; ii) assess the compositional quality of meat and fat; and iii) carry out sensory evaluations of the meat to verify the potential effects of immunocastration on males of this breed raised outdoors.

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