

Determination of hematological parameters in miniature pigs ⁽¹⁾

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The aim of this study was aimed to determine the hematological parameters in miniature pigs, so as to provide the basic reference data. Eight hematological parameters in Lanyu pigs were measured using automatic hematological analyzer and the differences between sexes, age, and species were analyzed. The results showed among the hematological parameters, only RBC, MCV and MCH showed significant difference between male and female Lanyu pigs in 3 month ($P < 0.05$). MCV, HCT, MCHC and HGB showed significant difference between male and female Lanyu pigs in 6 month ($P < 0.05$). There were no sex differences in the other parameters. The hematological parameters between 3 and 6 month in the same sex were not significantly different. MCV, MCH and HCT showed significant difference between 3 and 6 month in male ($P < 0.05$). MCHC and HGB showed significant difference between 3 and 6 month in female ($P < 0.05$). To compare the differences of blood physiological parameters among the Lanyu pigs and Binlang pigs, there were significant differences in WBC, PLT, HCT, MCH, MCHC and HGB ($P < 0.05$) between the Lanyu minipigs and Spotty Lanyu pigs, there were significant differences in WBC, PLT, MCV and MCH ($P < 0.05$) and between the Lanyu pigs and Mitsai pigs, there were significant differences in WBC, MCV, HCT, MCH, HCHC and HGB ($P < 0.05$). Throughout the comparison among the different types of miniature pig breeds and the human reference values, Gottingen minipigs, Chinese experimental minipigs, Binlang pigs, Spotty Lanyu pigs, Mitsai pigs and Leesung pigs the reference could help the use of miniature pigs in medical science research.

Key words: Miniature pig, Hematological parameter, Blood.

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