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TITLE

INFLUENCE OF TWO DIFFERENT AMOUNTS OF IRON INJECTIONS ON THE HEMOGLOBIN CONCENTRATION IN BLOOD IN PIGS

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CONTENT

Background and objectivesIn the first three weeks of life piglets produce a lot of red blood cells. The congenital iron depot (~ 50 mg) is exhausted after approx. 1 week. To avoid iron deficiency, the piglets must have an additional supplement of iron. To determine whether a pig has an iron deficit, the hemoglobin concentration in the blood can be measured. Normally, a hemoglobin concentration above 90-110 g/l is deemed sufficient. Measurements in several farms in our veterinary practice showed a low average hemoglobin concentration at around 10-12 days of age and just before weaning. The aim of this study was to measure if 1.5 ml of iron dextran could give a higher hemoglobin concentration than 1.0 ml. **Materials and methods** 202 piglets were randomly distributed in two groups within 24 hours after birth. The pigs were individually ear tagged. Each group got an injection of either 1.0 ml (Low) or 1.5 ml (High) iron, between 30 and 60 hours after birth. Hemoglobin concentration was measured 12 days after injection with the Hemocue 201+ in blood from an ear vein. For statistical analysis, a t-test was used. **Results** 175 pigs were tested (eight pigs died before iron injection, 15 died after iron injection and four pigs were not located at testing). The mean hemoglobin concentration in the "low" group was 91.9 g/l whereas the "high" group had a significantly higher concentration of 95.3 g/l ($p=0.027$). **Discussion and conclusion** Although the hemoglobin concentration was raised significantly, the value was still below 110 g/l. Results from other measurements in our practice shows that there is considerable difference between pigs and farms. Measurements in 40 different farms show a range of 61 to 120 g/l. Further studies will have to investigate what causes the difference between farms and if this difference influences growth and/or survival.