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TITLE

EFFECT OF HYPOSPADIAS IN A CROSSBRED BOAR ON REPRODUCTION

Alexander Grahofner¹, Heiko Nathues¹

¹ *Clinic for Swine, Vetsuisse Faculty, University of Bern, Switzerland*

CONTENT

Background

Hypospadias, a congenital anomaly of the urogenital tract, is rarely described in boars.

Material & Methods

In this case, the effect of hypospadias in a crossbred intact Pietrain x Duroc boar on sexual function and reproductive parameters is reported. 57 matings with the boar were compared with the average reproductive performance of the other three boars in the farm (70 litters) and reproductive performance after artificial insemination (567 litters).

Results

General physical examination revealed no abnormalities. The andrological examination supplemented with ultrasound revealed no abnormalities of the genital tract apart from the distal hypospadias. Subsequently, the boar was exposed to a sow showing signs of oestrus, in order to assess the ability to mount and to ejaculate. The boar showed a normal mating behaviour and the semen quality parameters were within the normal ranges. The analysis of the reproductive data revealed that the boar with the hypospadias had a return to oestrus rate of 13.7 % compared to 9.3% after mating with other boars and 7.4% after artificial insemination. Furthermore, the number of total born and live born piglets from the affected boar was lower compared to the other groups.

Discussion & Conclusion

This is the first report that describes the effect of hypospadias in a boar on sexual function and reproductive parameters. Interestingly, the affected boar showed no abnormalities in the sexual behaviour and the semen quality. However, a reduced reproductive performance was manifest in comparison with other mating boars and artificial insemination. It is not clear, whether the observation differ due to the pathoanatomical finding or the individual variation of this single boar. However, in human medicine it was shown that hypospadias has a negative impact on sexual function and fertility. A case-control study is needed to statistically prove the effect of hypospadias in boars on reproduction.