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Presumptive glandular prostatic hyperplasia in felids – a clinical case in a cheetah

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A 10 year old breeding male cheetah was presented for reproduction breeding soundness examination before semen collection and insemination attempt. Until a year ago, this cheetah has been successfully used for breeding on many occasions. Semen collection and spermatocytogram were performed following CRESAM protocol previously published (1). The cheetah was teleaesthesized using a combination of dexmedetomidine (Dexdomitor®, Vetoquinol, South Africa) (40 μg/kg) and ketamine (Imagine®, Mérial, South Africa) 2,5 mg/kg. The distance between the anus and the cranial portion of the prostate (14 cm) was recorded under ultrasonography. Before semen collection, the bladder was catheterized, emptied and then rinsed several times using M199® cell medium (Sigma-Aldrich, country). Electroejaculation was performed using a standard electrostimulator (P and T Electronics, USA), with a 20 cm bipolar rectal probe with 3 longitudinal electrodes. The electrostimulation protocol consisted of 30 stimulations (10 at 2 volts, 10 at 2 volts, 10 at 3 volts) repeated 5 minutes later then followed 5 minutes later by 20 stimulations (10 at 3 volts, 10 at 4 volts). Spermogram and spermocytogram were performed using a haemocytometer (Thomas chamber) and the staining technique described by Pope (2).

The total volume of collected semen was 3.8 mL and the pH was 8. The total number of spermatozoa was below 20 million. The estimation of initial sperm motility was 0 %. The percentage of sperm defects was 85%, mainly coiled tail and distal droplets. No hematospermia has been observed. The ultrasonographic appearance of the prostate was abnormal and leading to a presumptive diagnosis of glandular prostatic hyperplasia: symmetrical lobes, margins of the gland were differentiated from the surrounding tissues, diffusely discrete inhomogenic, but numerous intraparenchymal cavities of varying size (< 7 mm, anechoic, and a no appearant wall). The enlargement could not be evaluated because of lack of size standardization in felids. The prostate gland was into the abdomen and not the pelvis. Both testes and epididymides were normal. Testes are echogenic with a homogeneous, medium echotecture as normal cats. The tail of the epididyms is less echoic than the testicular parenchyma. The head and body of the epididyms were nearly isoechoic with the testis. No lumbo-aortic or iliac lymph node enlargement was visualized. This clinical case is the first to describe a presumptive diagnosis of a benign prostatic hyperplasia in a felid species. The cavities were probably representing dilated acini and ducts secondary to hyperplasia as reported in dogs (3). Severe BPH may lead in dog species to an inflammation of the reproductive system leading to the end to OAT. This case question about a similar situation in felids. Furthermore, male dogs leaving in kennels with an intense sexual activity may develop BPH to a young age (as soon as 2 to 3 years old). This case question also about an identical problematic in felids leaving in cattery. It would be interesting to conduct a study in catteries to assess the quality of semen, the ultrasonography prostatic gland appearance, and the fertility, according the tomcat age and breeding conditions.


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