ULTRASONOGRAPHIC ASSESSMENT OF THE OS PENIS IN THE CAT

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Abstract

Introduction

The os penis and the penile structure in the cat have not been described ultrasonographically, up to date, as in dogs. In radiography[1] and in Computed Tomography[2] the os penis has been described as a thin linear bony structure not always detected in the perineal region of the male cat. The aim of this study was to determine and characterize the os penis as seen by ultrasound, with the support of histological examination.

Methods

Ultrasonographic examination of the penis of 15 cats of unknown backgrounds was performed post-mortem using a 12 MHz linear transducer, after trichotomy of the area. All cats were European Domestic Shorthair, six (40%) neutered and nine (60%) intact. Three cats (20%) were < 6-month- old, twelve (80%) were > 1-year-old.

Fig.1 : ultrasound examination of the penile structure of a male adult cat, with the presence of a thin linear hyperechoic structure; sagittal plane.

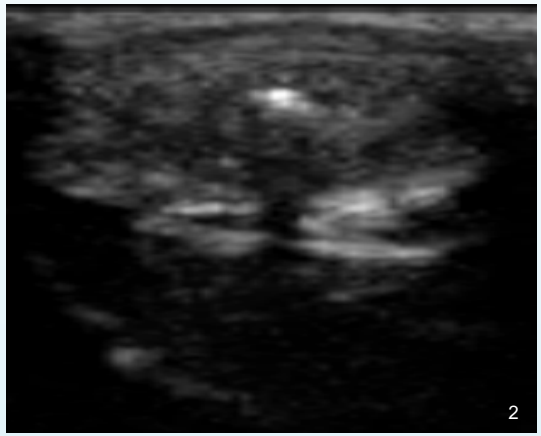


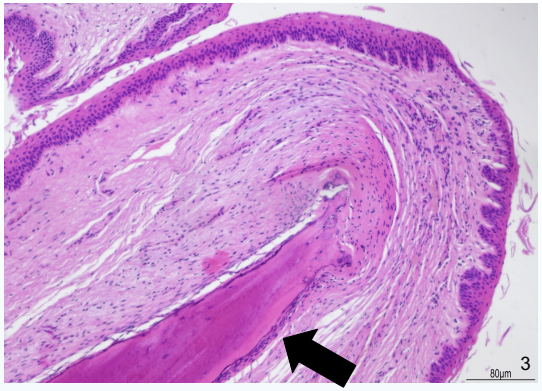
Fig.2 : ultrasound examination of the penile structure of a male adult cat, with the presence of a thin round hyperechoic structure; transverse plane.

Results

On ultrasound examination, the penis appeared hypoechoic and homogeneous with an echoic surface; in 12 cats a thin linear hyperechoic structure with a median length of 4.3mm (range 3.5-4.8mm) on the sagittal plane, round on the transverse plane, was identified, with a faint comet tail artifact in some subjects. This element wasn't detected in the 3 subjects younger than 6 months of age. Histological examination of the specimens confirmed the presence of compact bone tissue in the 12 adult cats.

Conclusion

The os penis in the cat can be assessed ultrasonographically as a linear hyperechoic structure of mean 4,3mm length, which should not be mistaken for urethrolithiasis or dystrophic soft tissue mineralization; in our study it wasn't present in cats younger than 6 months.



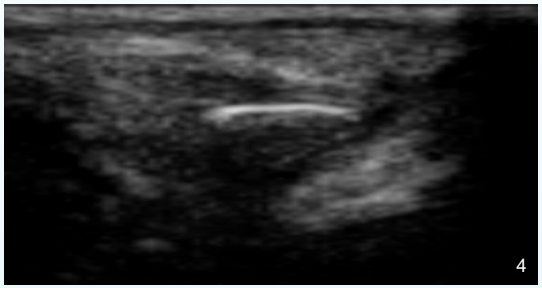


Fig.3-4 : histological section of the penile structure of a male adult cat, with the presence of compact bone tissue (black arrow), and ultrasound examination on sagittal plane.

References

1. Piola, V., Posch, B., Aghte, P., Caine, A., & Herrtage, M. E. (2011). Radiographic characterization of the os penis in the cat. Veterinary Radiology & Ultrasound, 52(3), 270-272.
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