ULTRASOUND BIOMICROSCOPY AND EVALUATION OF THE FELINE IRIDOCORNEAL ANGLE

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Purpose
Identify qualitative features and quantitative parameters of the iridocorneal angle in healthy cats using ultrasound biomicroscopy (UBM).

Methods
Eight cats for a total of 16 eyes, admitted at the Veterinary Teaching Hospital of the University of Camerino for routine procedures were included in this study. All cats included were free from ophthalmic diseases, had a normal intraocular pressure (IOP) pressure and did not undergo pharmacological therapy potentially affecting the IOP. Images and measurements were obtained from all cats using ACCUTOME PLUS UBM device after sedation and topical anesthesia. The following measurements were obtained: HICA (height iridocornel angle), DICA (depth iridocorneal angle), ICA (iridocorneal angle area) e HAC (height anterior chamber). All the data obtained by three sequential measurements from each eye were summarized in mean and standard deviation and subjected to omoscedasticity analysis using Cochrane test.

Results
In all cats, the UBM examination allowed a full evaluation of the cornea and the scleral corneal junction, the iris, the crystalline and the drainage angle. Mean HICA was 1.43 ± 0.15 mm (C=0.30, α =0.01), mean DICA was 3.05 ± 0.27 mm (C=0.14, α=0.01), mean ICA was 1.83 ± 0.28 mm^2 (C=0.28, α=0.01), mean HAC was 3.47 ± 0.12 mm (C=0.24, α=0.01).

Conclusion
Despite the small sample size, measured data were statistically homogeneous in the population studied. UBM is an easy-to-use method that can be used to study the iridocorneal angle in cats. To the author knowledge, this study provided the first *in vivo* UBM evaluation in healthy cats.