CYTOLOGY AND MAGNETIC RESONANCE IMAGING IN THE DIAGNOSIS OF ORBITAL NEOPLASIA

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Purpose: To determine the diagnostic value of cytology and magnetic resonance imaging (MRI) in orbital neoplasia.
Methods: 29 cases of feline (n=15) and canine (n=14) orbital neoplasia were evaluated. All cases underwent a complete ophthalmologic and general examination. Orbital fine needle aspiration biopsy (FNAB) was obtained without sonographic guidance. Cellular material was brought onto a glass slide and allowed to air dry. Slides were stained according to May-Grünwald-Giemsa and examined by light microscopy. 26/29 cytologic specimes were available for evaluation. 24/29 cases underwent MRI. In five cases MRI was either impossible due to metal implants (n=2) or not justified due the obviously infiltrative nature of the neoplasia (n=3).
Histologic specimens were obtained in 16/29 cases.
Results: The tumor diagnosis based on cytology only (n=10) and confirmed by histology (n=13) was adenocarcinoma (n=5), fibrosarcoma (n=5), squamous cell carcinoma (n=4), lymphoma (n=4), carcinoma (not subtyped) (n=2), osteosarcoma (n=2) and mastocytoma (n=1).
Correlation of cytology and histology was good for adenocarcinoma and squamous cell carcinoma. Contrary to discrete round cell tumors diagnosis of mesenchymal tumors was difficult in some cases. Due to lack of specific cytologic criteria exact subtyping of carcinoma and sarcoma was not possible in every case. Since paired cytologic and histologic samples were only present in 13/29 cases diagnostic accuracy of cytology could not be demonstrated in this study.
However cytology revealed the diagnosis "malignant neoplasia" in 26/29 cases. Three specimens contained only blood, inflammatory cells and/or necrotic tissue. In these cases diagnosis was based on MRI. On MRI all 29 cases showed infiltration of a contrast enhancing mass into orbital bones and/or sinuses. According to these findings none of the patients was a good surgical candidate.
Conclusions: FNAB/cytology seems to be a good diagnostic tool of minimal invasive nature to establish the diagnosis of malignant orbital tumors. If surgical therapy is considered further imaging techniques seem to be mandatory.

MULTIFOCAL RETINAL DYSPLASIA (MRD) IN THE GOLDEN RETRIEVER IN THE UK

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Purpose: This study was conducted in order to establish the ophthalmoscopic appearance of dysplastic lesions in the ocular fundi of golden retrievers examined under the British Veterinary Association/Kennel Club/International Sheep Dog Society (BVA/KC/ISDS) Eye Scheme in the United Kingdom and to assess the incidence of dysplastic lesions in golden retrievers examined under the Eye Scheme from January 1998 to April 1999.
Methods: Between January 1998 and April 1999 a total of 4,091 certificates from golden retrievers certified under the BVA/KC/ISDS Eye Scheme were received by the British Veterinary Association. For each dog examination of the ocular fundus using direct and indirect ophthalmoscopy had been performed following the use of 1 % tropicamide (Mydriacyl©; Alcon) and the results were recorded in writing and by means of annotated diagrams an the BVA/KC/ISDS Certificate of Eye Examination.
Results: Of the 4,091 dogs examined, 128 were certified as 'affected' for multifocal retinal dysplasia, an apparent incidence of 3.13%.
The morphology of the dysplastic lesions in the 128 golden retrievers certified as 'affected' for MRD under the Eye Scheme were single or