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FAVA-0021
A Primary Hepatobiliary Neoplasia in a Persian Cat
P03

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Biliary carcinoma was diagnosed in a 7-year female Persian cat. The presented clinical signs were not conclusive and shared many other health problems in cats. Thorough clinical examinations including blood laboratory analysis, ultrasonography and histopathology were mandatory for reaching definite diagnosis.

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FAVA-0041
MexEF-OprN, a Prominent Resistance Mechanism in Multidrug Resistance Pseudomonas aeruginosa Isolate from Dogs and Cats
P04

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Pseudomonas aeruginosa has been reported to be a causative agent of otitis externa, dermatitis and urinary tract infection in dogs and cats. The organism is infamous for its resistance to multiple antimicrobials and one of multidrug resistance (MDR) mechanisms is multidrug efflux pump (Mex system). To investigate resistance mechanisms underlining MDR phenotype, 13 *P. aeruginosa* clinical isolates from dogs and cats were examined for the presence of 4 clinically-importance multidrug efflux pump; MexAB-OprM, MexCD-OprJ, MexEF-OprN and MexXY using qualitative RT-PCR. All isolates were found to express MexAB-OprM, MexXY and MexEF-OprN. We measured *mexF* transcription level using quantitative real-time RT-PCR to determine expression level of MexEF-OprN. Relative transcription level of *mexF* was 4-219 fold higher than wild-type, PAO1. Four highest (219 and 75 fold) and lowest (4 and 8.5) *mexF* expression strains were subjected to examine for mutation in their positive regulator, *mexT* using nucleotide sequencing. Sequencing analysis of *mexT* revealed the absence of 8 nucleotides (5'cggccagc3') insertion at location 105 with additional mutation (Phe(TTC)-129-Ile(ATC)), suggesting the possible impair in regulation. Since the expression of MexEF-OprN conferred resistance to trimethoprim, tetracycline, fluoroquinolone, chloramphenicol and imipenem, use of these antimicrobials should be aware. This study highlights the significant contribution of MexEF-OprN, normally silent system, in MDR phenotype of *P. aeruginosa* from dogs and cats. Additional gene of uncharacterized regulation of MexEF-OprN exists.

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FAVA-0076
Study of Gene expression of HAS1, HAS2, COL2A1 and MMP3 in Articular cartilage from Dogs with Patellar Luxation
P05

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This study aims to understand the pathogenesis of osteoarthritis in dogs with patellar luxation by the expression level of mRNA. Thirty-three dogs divided into four groups; (A) patellar luxation with cartilage erosion (n=10), (B) patellar luxation without cartilage erosion (n=11), (C) dogs with stifle osteoarthritis (n=9), (D) dogs with normal articular cartilage (n=3). The degrees of patellar luxation were classified by manipulation. Cartilage erosions were evaluated during the surgical correction for patellar luxation. The cartilages were collected at the lateral site of the femoral trochlear for RNA extraction. Quantitative real time PCR was performed using four transcripts; *HAS1*, *HAS2*, *COL2A1* and *MMP3*. All transcripts were comparison with *glyceraldehyde-3-phosphate dehydrogenase* (*GAPDH*) as an endogenous control. Statistical analysis was using One-way ANOVA, difference between groups was using LSD test. In the results, patellar luxation had classified in grade 2(4.76%), 3(47.62%) and 4(53.62%), thirteen stifles (61.9%) found erosion on articular cartilage. Group A or B